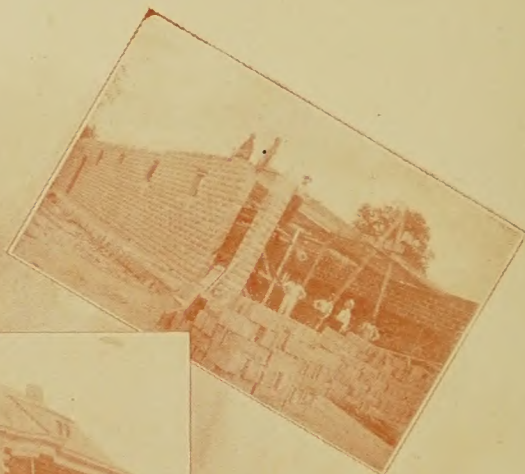


Stone Laying

BY THE PETTYJOHN SYSTEM



Buildings Constructed of Pettyjohn Blocks

12-
1984F4

Concrete is not the Coming Age—It is Here

The Pettyjohn Company

MANUFACTURERS OF

CONCRETE
Moulding Machinery

Terre Haute, Indiana, U. S. A.

CABLE ADDRESS: PETTYJOHN, TERREHAUTE

OFFICES

600-650 North Sixth Street
New Phone 1470
Old Phone, Main 1654

STONE YARDS

1200-1600 North First Street
New Phone 3039

*The Largest Factory in the World Devoted Exclusively
to the Manufacture of Concrete Block Machinery.*



ROSE DISPENSARY BUILDING, TERRE HAUTE, INDIANA

Erected of Concrete Blocks fifteen years ago and is yet the handsomest office building in a city of 60,000 population. It is in absolutely perfect preservation and its offices bring the highest rentals of any in the city.



Portland Cement

PORTLAND CEMENT has made such vast strides in the last few years, it has been used in the work of the greatest importance so extensively and with such satisfaction, that its many valuable qualities are now known to everybody. We find it towering in the air, tunneling the earth, and like Gibraltar, holding the sea at bay. And why not? It is as readily moulded as wax, limited in form, color and design only by the imagination of the architect, and possesses the endurance of the pyramids. For building purposes it is unsurpassed, unequalled.

The hollow concrete building block is here—it has come to stay! It is now simply a question of the machine. We have it! A machine that will turn out more blocks, handsomer blocks, stronger blocks and better blocks at less cost than any other machine on the market. A machine too simple to get out of order, too strong to break, and so cheap that every builder can afford to own one.

Establishing a plant to make the blocks for the market requires but small capital, may be readily expanded as business justifies, and brings handsome returns.

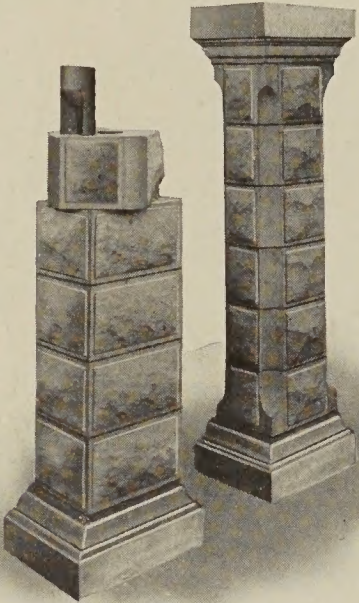
The blocks are suitable for all classes of building construction, and we have inserted in this catalog photographs of buildings of widely different character, such as barns, stores, residences, churches and office buildings. No attempt has been made to illustrate any considerable number of concrete block buildings, as the primary object of this catalog is to describe machinery, not buildings.



Move the machine
not the block

The Use and Abuse of Portland Cement

WHEN Portland cement began to be used so extensively and by so many persons totally ignorant of its properties, and working without direction, there was much uncertainty as to its proper use, and particularly as sometimes good results were obtained with totally incorrect methods of handling. This only proved that "accidents will happen," or possibly that cement is like a hen—when it wants to set it sets.



The question is not merely to get cement to set—it will do that anyway if it gets into contact with water. The question is one of economy and intelligence—to get the best possible results with the least possible expense. The foremost chemists and engineers of the world have made thousands of tests with the most accurate instruments and careful handling, have compared notes and verified results, till we now have certain well recognized "laws" to guide us, the most important of which are as follows:

1. Portland cement should have only enough water at first to start crystallization. Too much water "drowns" cement.
2. Water should be fed to the stone as crystallization requires.
3. Concrete continues to harden with increasing age and the slower the crystals form, the larger and stronger they will be.
4. Concrete should be made compact, the grains of sand being worked till they thoroughly weld themselves into each other and close all the pores.
5. *This is best accomplished by frequent but light tamping.* Hard tamping jars and bounces the sand without packing it.
6. Pressure will not make a good stone, the reason being that when pressure is applied the concrete is at once made compact at the top and bottom in thin layers. These layers effectually form a seal and prevent the air on the inside from escaping, and the air is compressed as the pressure is applied. As soon as the pressure is removed the air expands, forces the grains of sand apart and makes a stone that is weak and porous and therefore easily subject to disintegration. On the contrary, *light but frequent tamping works the air out and packs the grains of sand together.*
7. Concrete when first made has no more strength than so much damp sand. If a crack is started while in this condition it will not reunite, but forms a permanent element of weakness, *therefore concrete should not be disturbed after it is moulded, or while it is setting.*

While there are other machines that make use of one or more of these fundamental principles, ours is the only one which embraces them all, or with which *an observance of all of them is possible.*

Napoleon's instructions to his generals were: "I don't want excuses, I want results." That has been the one idea constantly before us in producing this machine, *RESULTS.*



Advantages of Hollow Concrete Buildings

Artistic appearance.

Cheapness of construction.

Buildings warm in winter and cool in summer.

Dry, ventilated walls, fire and frost proof.

Insurance is cheaper because they are fire proof.

Require no painting or repairs.

Blocks can be laid in the wall rapidly and require but little mortar.

Plastering may be done on the back of the stone, saving lathing.

Blocks are true and square, and can be laid by comparatively unskilled labor.

Free from rats, mice and vermin; perfectly sanitary.

Resist rain and dry quickly, while solid walls remain damp.

At slight additional expense can be made absolutely water-proof, while other masonry cannot.

Can be moulded into the most elaborate designs conceived by the architect

The stone is thoroughly durable, becoming harder with age.

The hollow space is useful for inserting gas and water pipes, electric wires, speaking tubes, ventilators, etc.



Own a Home

THE spirit of home-making and home-building is a national trait encouraged and fostered by the best contemporary thought of the age. It should be the ambition of every man to own a home, a little hallowed spot that he may call his own.

The increasing scarcity and consequent high price of ordinary building material has been an obstacle in the way of those of limited means until the advent of the concrete block. Concrete construction has lessened the cost and simplified home building. The cheapness and abundance of raw material and a modern and inexpensive block machine make possible the building, at a cost not to exceed and often less than ordinary building materials, of a home infinitely superior in point of beauty, durability and economy than was ever possible before. Houses built with concrete blocks are practically fire-proof as well as moisture-proof, and require neither painting or repairing. The blocks are easily adapted to any possible style of architecture. The countless designs and natural stone effects that may be produced on a Pettyjohn machine gives a distinctive beauty possessed by no other material save natural cut stone.

It is possible for one to purchase a Pettyjohn machine and manufacture the blocks at spare times on his own ground at an expense only for the machine and the raw material. An extensive equipment is not necessary. In this way a modern home may be built at a small cost. The handsome blocks produced by the Pettyjohn machine, and the low cost at which they may be made by the Pettyjohn system, are sure to delight your friends and neighbors. This creates a local demand for the blocks which may be supplied at a liberal profit. In this way enough may often be made to pay for the whole outfit and in addition an opening secured for a profitable business.

Pettyjohn Collapsible Principle

Positive view shows position during tamping.
Phantom view shows position during release.

Patented in U. S. A. (1st) June 27, 1905.

Patented in U. S. A. (2nd) Jan. 16, 1906.

Patented in Canada April 18, 1905.

Patented in Great Britain June 29, 1905.

Patented in Mexico June 3, 1905.

Patented in Spain June 13, 1905.

Patented in France June 13, 1905.

Patented in Germany June 6, 1905.

Patented in Russia April 30, 1905.

Patented or Patents Pending in all Principal Foreign Countries.

The Pettyjohn principle of collapsible sides for concrete mould boxes is patented in the United States and all principle foreign countries, and is used in many of our moulds and machines such as

The Pettyjohn Upright Model Portable Block Machine.

The Pettyjohn Facing Model Portable Block Machine.

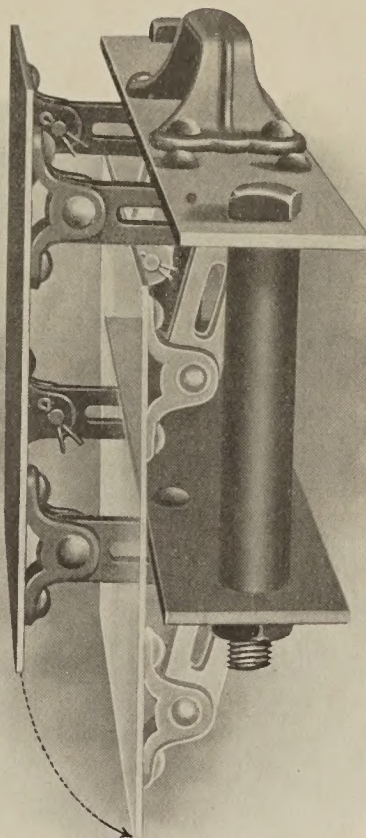
The Pettyjohn Adjustable and Portable Sill and Cap Machine.

The Pettyjohn Veneer Machine.

The Pettyjohn Sidewalk Block Machine

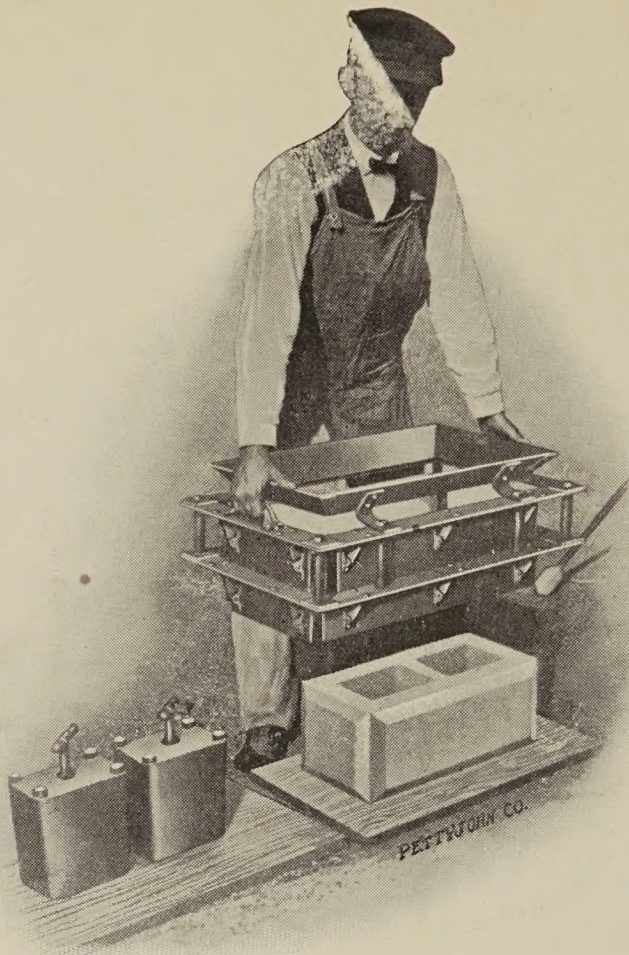
The Pettyjohn Fence Post Machine, and other machines for special purposes.

Infringers are warned and will be vigorously prosecuted. The cut above illustrates an end taken from a standard size hollow concrete block machine and illustrates the mechanical operation of the basic principle. The minor details of our machine are also patented.



Move the machine
not the block

In use, the frame portion passes slightly below the dead center making it impossible for it to rise voluntarily during the tamping process and gives great rigidity to the interior mould box. When the frame is lifted across the dead center, it conveys a lateral pressure in all directions, thus compacting by pressure the material near the surface in addition to the tamping given during the moulding process.



Releasing the Finished Block

The Pettyjohn Upright Model

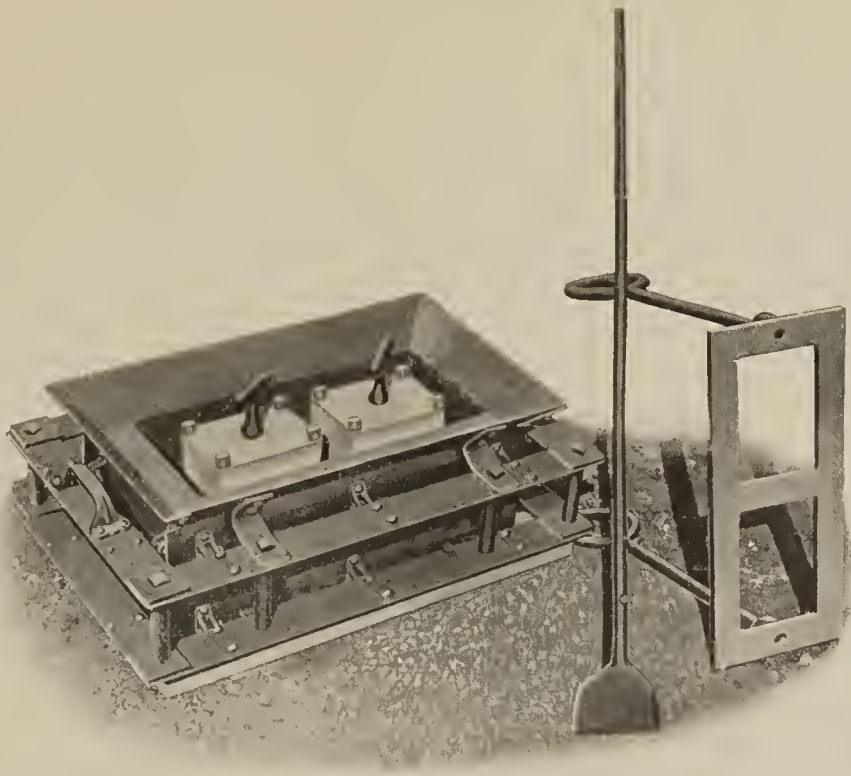
OPERATION OF THE MACHINE

THIS cut shows the making of a bevel edge corner block. The cores are shown on the next pallet, and when the machine is placed on it everything is ready for moulding another block. **JUST AS SIMPLE AS A B C.**

Starting with the machine in position, the sequence of operating is as follows: The mixture is shoveled into the machine, waste being prevented by the hopper. The concrete is then tamped by hand with tamping rods until the mould box is full and solid. The finishing of the top is done with a malleable iron tamping plate in the shape of the top of the stone, which is much faster than troweling. Before the tamping plate is removed the cores are withdrawn and placed on the next pallet. The cores are provided with guides so that they will go to their exact places. As the cores are placed the handles on top are given a slight twist which locks them securely to the pallet. The machine is then lifted off the finished stone, the sides falling apart automatically, and as it is placed on the next pallet the sides go to place again. Rock faced or such other ornamental designs as may be desired are produced by means of face plates put against the sides or ends of the mould box and requiring no thumb nuts or the like to hold them in place, so that changes may be made instantly.

All of our rock faced designs are taken from natural cut stones and produce blocks that are strikingly handsome in appearance.

In twenty-four hours the blocks will be hard enough to be lifted from the pallets and piled in stacks to cure. They are usually allowed to remain on the yard for ten days to two weeks, but the older they get the harder they will become.



The Machine ready for the Mixture

Advantages of the Pettyjohn Machine

1. *The blocks do not have to be carried away from the machine, but are left where made until used or sold, the machine merely moving from spot to spot as the blocks are moulded.* This saves nearly half the labor and avoids all loss by breakage, which will run from ten to thirty-five per cent. with that class of machines which require that the blocks be moved while they are green and tender. Not only do we have no breakage, but we have no cracked or weakened blocks.

2. *No heavy and expensive iron pallets* are necessary or desirable. The pallets alone for other machines cost more than our complete equipment.

3. No need to buy another machine to make wider blocks. An adjustment, the cost of which is small, is all that is needed.

4. No need to get additional pallets when cores of different size are wanted. The same pallets answer for cores of all sizes.

5. The blocks are made on the floor instead of several feet above it, thus making it *easier to shovel in the mixture and easier to tamp.*

6. *There are no cogs, gears, springs or levers* to get clogged up with cement, or get out of order.

7. Changes may be made in the design of the stones without the loss of a moment's time, *as the face plates are not a working part of the machine*, and have no hinges, bolts or clamps attached to them.

8. All the different shapes ordinarily used in any building, such as stretchers, corners, halves, inside returns, circular and octagon bays, watertables, flues, pilasters, etc., etc., are moulded in the same machine merely by changing the dies or face plates, a complete set of which is furnished with the machine.



Interior View of Stone Factory

9. Special and unusual shapes are also easily moulded merely by placing the face plates and blockings in the desired position. They may be put in any part of the mould box, as explained in the printed directions sent with each machine.

10. Dry face plates may be always used, as the wet ones can be exposed to the sun or wind, and dry ones substituted. No time is lost in making the change, as the face plates are not hinged or bolted to the machine in any way—they merely drop in.

11. *It is by far the fastest machine made*, regardless of price, and will make, under actual practical conditions, nearly twice as much product with a given amount of labor as any competing machine. It is the only practical *one man machine*: and one man with one of our machines *can make a perfect block in one minute*, or he can turn them out under ordinary working conditions at the rate of from *twenty to twenty-four* an hour. As the manipulation of the machine takes but a few seconds, it may really be said that it takes only so long to make a block as is consumed in the amount of tamping given it.

12. The machines are made entirely of steel, and the face plates and accessories of malleable iron, so the entire outfit is indestructible and non-breakable.



AN OPEN-AIR YARD

13. Owing to the quality of material used, we have no freight claims and secure very low freight rates: fourth class.

14. The machine is especially adapted for quick transportation and for the export trade, owing to its very light weight.

15. They are built in large quantities by special machinery and every part fitted true to template, so that accessories may be ordered at any time with the certainty of a proper fit.

16. *It is simplicity itself.* Any school boy can operate it after reading the instructions. In lifting the machine away from the finished stone, the sides of the mould box fall apart easily and naturally, and when it is put down again, they go to place automatically.



Courtesy of the Hollow Concrete Block Mfg. Co., New Orleans, La. Largest block plant south of the Ohio river. Pettyjohn machinery used.

Transporting and Off-Bearing



THE PETTYJOHN WAY
One Man Moving Twelve Blocks

two men, one at each end of a pole, moving a comparatively heavy weight (the block) a distance varying, but frequently several hundred feet.

Moving the machine is simple, but in moving the blocks the greatest care and skill are required, as the slightest jar or mis-step means a broken block and loss of labor and material, to say nothing of patience and temper.

Sometimes the jar is very slight, and, instead of actually breaking the blocks, there is formed a hair crack or invisible check which is worse than a break, for such blocks may sever in the building, and thus damage the appearance of valuable property and injure the reputation of the manufacturer of the blocks.

Everybody knows that concrete should not be disturbed after it is moulded or while it is setting, but the Pettyjohn machine is the only one with which it is possible.

Necessity is the mother of invention, and it was the necessity for such a machine as this that caused its production. At first we kept the machine solely for our own use in our own stone factories, but later decided to share our success with the world. Orders commenced to pour in upon the appearance of the first advertisement and in less than a year the machine came to be the recognized standard wherever hollow blocks are used.

Today there are more Pettyjohn machines in use than of any other make and the daily sales are far greater than those of any competitor. The largest plants in the world use Pettyjohn machinery.

A little reasoning will tell you why—merit always wins.

IN manufacturing any commodity, a moving of the raw and finished product is necessary to a greater or less extent, and the tendency of all modern invention is to reduce this labor cost to a minimum.

With the Pettyjohn system the material is moved to the machine on wheels and one man easily transports enough for ten to twelve blocks with no possibility of damage to product by crackage or breakage.

With other machines it takes two men to move one block. We move the material *but once*—from the mixing place to the moulding place, and there the blocks cure. Others move it *twice*—first from the mixing place to the moulding place, and second, from the moulding place, *under difficulties*, to the curing place.

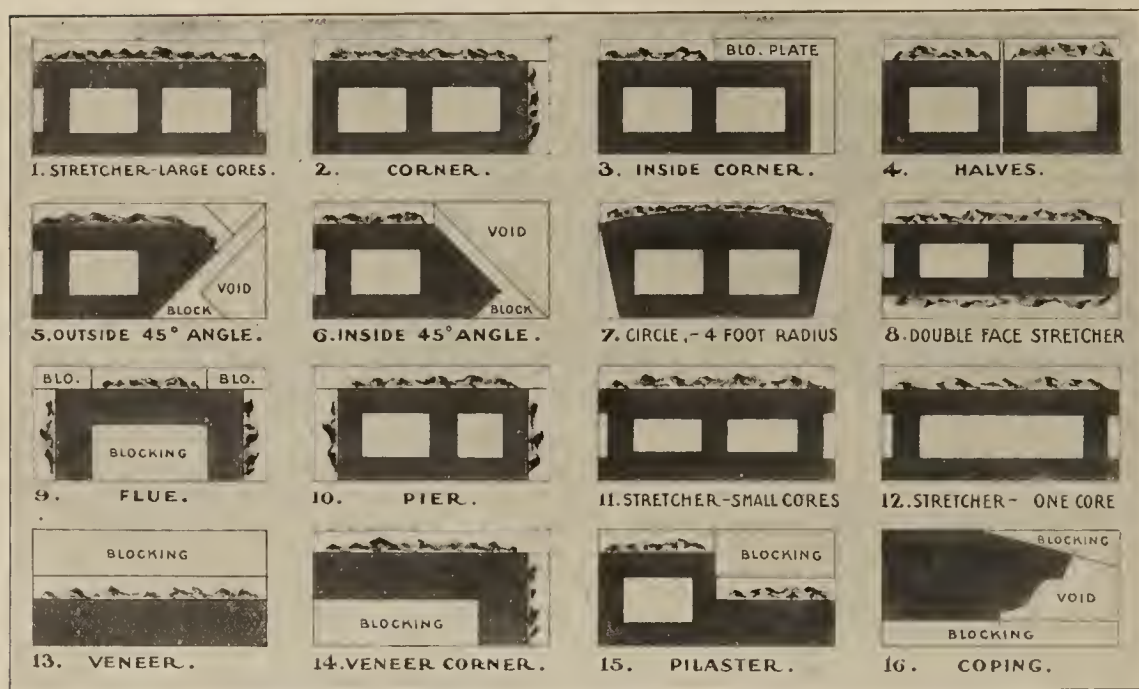
The word “off-bearing” is a useless one in a stone yard, and is fast growing obsolete.

The cuts on this page give an idea of the ease with which the blocks are made and the certainty with which perfect blocks are turned out.

Compare our method of one man lifting a comparatively light weight (the machine) and moving it less than two feet, with the method, now growing obsolete, which required,



THE OTHER WAY
Two Men Moving One Block



THE PETTYJOHN BLOCKING SYSTEM

THE above cut shows the method of arranging the face plates and blockings in order to produce the various shapes that may be desired. All of the above, and by the use of improvised wooden blocking hundreds of other shapes, can be made in a standard size machine without adjustable ends. Wider ends further increase the scope of the machine—practically without limit. For versatility the Pettyjohn machine stands without a peer.

Sizes and Shapes



A STRETCHER BLOCK
With Small Cores

It is impossible for us to anticipate all the requirements of the modern architect, but we send directions so that any carpenter can quickly improvise plates for special shapes or designs.

ALL of our building block machines, in addition to the stretcher stones, will make halves, quarters, corners, inside returns, flues, pilasters, bay window stones and almost any size or shape desired, within the capacity of the machine.



A CORNER BLOCK
With Large Cores



Designs

WITHIN the limits of an ordinary machinery catalog it is not feasible to publish cuts of all the different designs for face plates or shapes of stones. Any of the various shapes may be made with the different designs. The cuts on this and the following pages will give an idea as to the possibilities. While we already have thousands of patterns, our pattern makers are constantly employed getting out new designs and keeping our machines always in the lead.

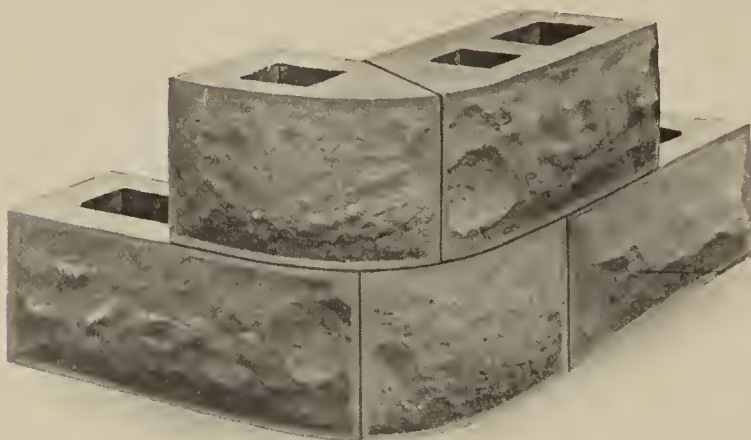
We have by far the largest assortment of face plates of any factory in the world; all purchasers of our machines have this large stock constantly at their disposal and are thus prepared to take any kind of a job that may be offered. We usually ship stock face plates on the same day the order is received. Special face plates for ornamental effects can be made to order on short notice.

The price for face plates is twenty cents per inch of length, so that a full length face plate for the standard 20-inch machine costs \$4.00, and the other lengths in that proportion. The face plates are not screwed or bolted to the machine, but merely dropped into the mould box. Changes of design or shape may be made instantly.



Blocks with Real Pebbles.

Facing, Coloring, Ornamental and Other “Effects”



Rock-face Round Corner Stones

Our *Upright Model*, which has been described, is not, strictly speaking, a facing machine, but facing can be accomplished on it by filling the face part of the mould box with the face material and the webs and back part with the cheaper grout, using a steel dividing plate to keep the two materials separate.

With the aid of different mineral colors, the stones may be made of almost any color, either solid, mottled or stratified.

In cases where an unusually handsome effect is desired, the blocks may be moulded 2 inches larger than they are to be in the finished wall. After the stones have partially set, this extra 2 inches is rocked off with a stonecutter's pitching tool, making an effect in the wall that is strikingly artistic and showing the natural break.

Owing to the cost of the extra 2 inches of face material and the labor of pitching the faces, this process adds considerably to the expense, and if this class of work is to be made in any considerable quantity we would strongly recommend the use of our *facing model*, which will produce the same effect without materially increasing the cost.

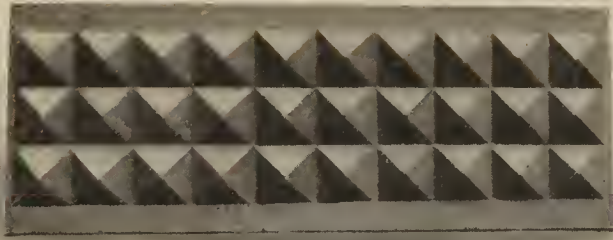
See Page 27 for description.



Rock-face Octagon
Pebbled
2-inch Pyramid, half
Granular Rock-face
Stretcher
Picked Point with Tooled
Margin
Broken Ashler



Rock-face Radius
Bevel Edge Corner
Rock-face Corner
Water Table Corner



J 8 A—Two-inch Pyramids |



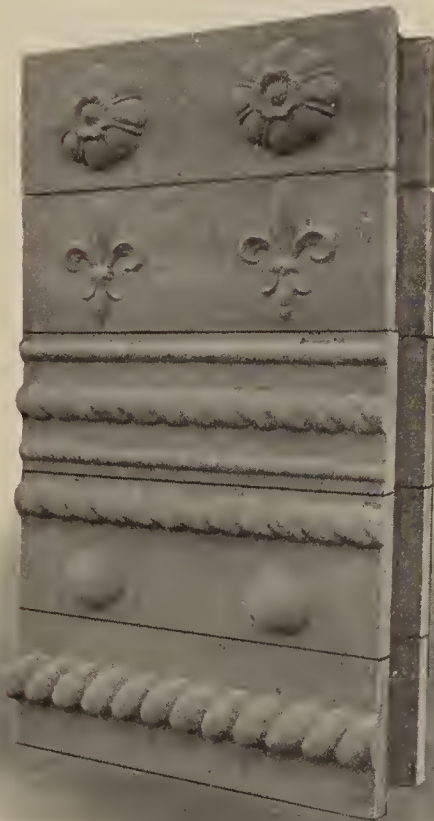
S 4 A—Perpendicular, $\frac{1}{4}$ -inch Bead

J 6 A—Pick point, with tooled margin

S 6 A—Plain panel

S 1 A—Bevel edge, with pick point surface

S 2 A—Plain bevel edge



J 2 A—Rosette

J 3 A—Fleur de Lis

J 4 A—Rope and Two Bars

J 5 A—Rope and Two Balls

J 7 A—Large Rope



137 X S—Coping

Wider Machines

WE carry in stock at all times machines for making blocks with standard size face plate, but of greater width than mentioned. The width usually selected is 4 inches wider, making blocks with design on face 12 inches wide or 14-inch smooth face blocks, but any desired width can be furnished. There is no advance in price for the wider machines.

Adjustments

ALL our machines may easily be changed in width by ordering extra ends, cores, hopper, tamping plates, rods, etc. Such parts are interchangeable and may be ordered with the machine or later when the need for different width blocks arises. The price for adjustable parts necessary so that the standard size machine will make blocks 12 inches wide or smooth face blocks as wide as 14 inches is \$35. Also see price list on page 48.

If greater capacity, as well as varied sizes [is desired, it is best to order an additional machine of the width preferred instead of an adjustment.

Additional Machines

ADDITIONAL MACHINES of the same length will cost considerably less than the first machine, as it will not be necessary to duplicate the equipment of face plates since one set of face plates is enough for several machines. The reduction amounts to about thirty-three per cent., and the equipment sent with the extra machines would include everything that is necessary to duplicate.

Larger Machines

WE make machines of any size desired and can furnish them at proportionate prices. A machine for blocks with 10 x 31 $\frac{3}{4}$ -inch face and for 10-inch rock face or 12-inch smooth face wall is a very desirable size for larger buildings, warehouses and factories. Two men are required to handle machines of this size, and the blocks also require two men to handle them. Ten inches is quite a satisfactory height, as it can be worked with brick, being equal to four courses, while the standard size is equal to three courses. It is frequently desirable and sometimes imperative, that the blocks should work with brick. We also carry in stock, machines for blocks 8 $\frac{3}{4}$ x 29 $\frac{3}{4}$ by any width wall specified.

The Standard Size Machine

OUR standard size machine makes blocks with 7 $\frac{1}{2}$ x 20-inch face for an 8-inch rock face or 10-inch smooth face wall; the face plate takes up the 2 inches difference. After years of practical experience in making and selling concrete blocks, as well as brick and other building materials, we have decided upon this as being by far the best size for general use that could possibly be selected. It is a size that is easily made, handled, hauled and laid in the wall by *one man*, and will work well with brick in all its dimensions. It is very desirable to have a block that will work with brick so as to make use of old brick for backing up, or for using brick in unexposed walls or for a stone front or stone trimmings to an ordinary brick building. A large proportion of the concrete blocks used are for foundations, and the small size stone have the effect of making the building appear larger. We can, however, furnish machines to make blocks of any desired size.

Special Machines

W E make machines for odd or unusual shapes or for special purposes, such as window and door sills and caps, railroad mile markers, fence posts, sidewalk blocks, grave markers, radius stones for big chimneys, etc. Such machines embody our principle of collapsible sides and other features. When writing for estimates, send a sketch showing the size and shapes of the stones to be made and state the purpose for which they are to be used.

Pallets

O RDINARILY we furnish one hundred pallets with each machine, so that the purchaser can begin to make blocks as soon as the machine is received. When desired we can furnish additional pallets at a reasonable figure. It is sometimes advisable for the purchaser to make his own pallets, especially where they are to be freighted a long distance or go into countries where there is an import duty. In such cases we furnish only a sample pallet and a template to aid in making the pallets accurately, and make suitable reduction in price. The pallets require some small malleable castings to be nailed to them, and also some guide pins to be driven in. These are invariably furnished by us.

Weight of Machines

T HE machines are made almost entirely of steel, and are very light for the great strength and durability they possess. The lifting weight of the standard size when in use is only sixty pounds—less than the weight of the block it makes. Its weight, with equipment and face plates boxed for shipment, is six hundred and fifty pounds, and the one hundred pallets weigh an additional six hundred and fifty pounds. Both the machinery and pallets ship as fourth-class freight.

Directions

W E send with our machines an illustrated book of directions to guide the operator at every point so that no trouble will be experienced in quickly and thoroughly mastering the details of the business.

The topics discussed are selection of material, proportions, amount of moisture for perfect crystallization, conveying material, tamping, moulding, the operation of the machine, arrangement of face plates and blocking for special shapes, with separate illustration and description of each of the most frequently used shapes and general instructions for moulding special, ornamental and unusual shapes. From this we proceed to the stacking and curing, which is a vital point of the process and about which definite knowledge is frequently lacking. Next follow instructions for laying in the wall, which is accompanied by blue prints showing arrangement for joist courses, etc. Special information is given concerning water-proofing, coloring and the production of special effects.



**Move the machine
not the block**

Cost to Manufacture Blocks



THE cost to make the blocks naturally varies in different countries and in different parts of the same country. In the northern part of the United States the standard size block, which measures $7\frac{1}{2} \times 8 \times 20$ inches, usually costs from 6 to 8 cents each.

Frequently the largest profits are made in localities where cement is high in price, as other building materials are usually correspondingly high.

We give below an itemized cost of this size based on present prices in our Terre Haute stone

factory. These figures may be changed to meet local conditions and are based on a three-machine plant:

10 yards sand and gravel at	\$.60	\$ 6.00
15 barrels Portland cement at	1.75	26.25
4 laborers (3 moulders and 1 mixer) at	1.75	7.00
Allowance for water and sundries		2.75
		<hr/> \$42.00

Dividing the total of \$42.00 by 600, which is the number of blocks the above material will produce and the four men make and take care of, gives the cost at 7 cents per block. When the blocks are made in large enough quantities to justify a concrete mixer, this cost can be somewhat reduced.

It will be noticed that the above is figured at the proportion of two-thirds of a yard of sand and gravel to one barrel of cement, which is about one to five and makes a most excellent, strong and durable block.

Delivery of the blocks usually costs about one cent each. Seventy of them can be hauled at a load. The usual selling price is from 14 to 20 cents, so that there is a very handsome profit in their manufacture.



An Inexpensive Store Building

Cost of Portland Cement

THE price of cement fluctuates, but the tendency is for it to get cheaper, as new factories are rapidly being erected in all parts of the country. The present price is only about half what it was in the spring of 1903. As we are large users of cement in our different factories, and in a position to control or direct a great deal of additional trade, we can usually secure a much lower price than can be had through local dealers with their profit added. We will take pleasure in securing quotations on cement for our customers, and will, in all cases, see that the orders are filled with the most satisfactory brands for hollow block work that are made within shipping distance of their locality.

To do this involves considerable correspondence and comparison of freight rates, prices and qualities, and it is a task that we can undertake on'y for purchasers of our machines. As cement fluctuates in value, quotations are given for immediate acceptance and prompt delivery. It would be useless to obtain them in advance of requirements.

Other Materials Required

IN addition to the Portland Cement the only other materials required are water and some form of aggregate or base material. The aggregate usually is sand or sand and gravel mixed, with the latter the most desirable, as the larger particles effect a saving in the quantity of cement needed for a given strength. Other aggregates often used are broken or crushed stone or shells and the waste products from mining, quarrying and manufacturing enterprises.

If there is enough sand, crushed stone or other fine material to bury the larger particles, they will not show, as our machine is made of sheet steel and vibrates sufficiently to bounce all of the larger particles inward. This is a feature possessed by no other machine, all of which are made of cast iron.

Water-proofing

WHEN blocks are to be used soon after being made and the plaster is to be applied directly to the stones, it is desirable that they be water-proofed either before or after the erection of the building. The solution for this purpose is very cheap, and we furnish the formula free to purchasers of the machine.

The appearance of the stones is improved by the water-proofing material, as the color is much lighter, and walls so treated will remain dry at all times.

We also have for sale a water-proofing compound which may be mixed with the cement and will render the blocks water-proof as soon as they have set. It is a dry, white powder and the extra cost to use it is 1 cent per standard size block.

Ask for circular.



Move the machine
not the block



**Plain Round
Baluster Post Mold**

4½ x 4½ x 14 in. \$ 7.50

5½ x 5½ x 16 in. 10.00

6 x 6 x 18 in. . 10.00



**Fluted Square
Baluster Post Mold**

Ornamented with Egg
and Dart.

4 x 4 x 14 in. . \$10.00

Molds for Ornamental Work

The manufacture of ornamental work is a very attractive and profitable side line in connection with any concrete working plant.

While in this class of work neither the demand nor the quantity sold is as large as for regular sizes of building blocks, at the same time the margin of profit is unusually great. For example, the Grecian column illustrated would cost about \$38.00 in cut stone or \$7.00 in wood, while it can be made in concrete at a cost of \$1.50 to \$2.00 and will sell readily at from \$10.00 to \$20.00 each. The 18-inch baluster molds can be made for 15 cents and sell at 50 cents each.



**Empire
Column Mold**

11 in. diameter \$45.00

18 in. diameter 75.00



**Renaissance
Column Mould**

12 in. x 6 ft. . \$45.00

Base is 18 x 18 in.

Five molds are required,
base, capital and two
for the shaft.

Price includes core.



Lawn Vase Mold

30 in. high.
22 in. top.
14 in. base.

\$35.00

IN addition to the direct profit, such high-class work as this will attract high-grade custom, and add to the prestige and general business of the stone yard.

The hitching posts are handsome and stately in appearance and when once introduced, can be sold for nearly all the first-class residences in your town, as well as for stores, business buildings and institutions.

The vases are suitable for all decorative purposes, being especially desirable for city parks, cemeteries and spacious grounds.

Owing to the handsome appearance of the work, it looks as though it might be difficult, but as a matter of fact, it is quite simple. The concrete takes the form of the mould perfectly.



Grecian Column Mold

10 in. diameter \$30.00

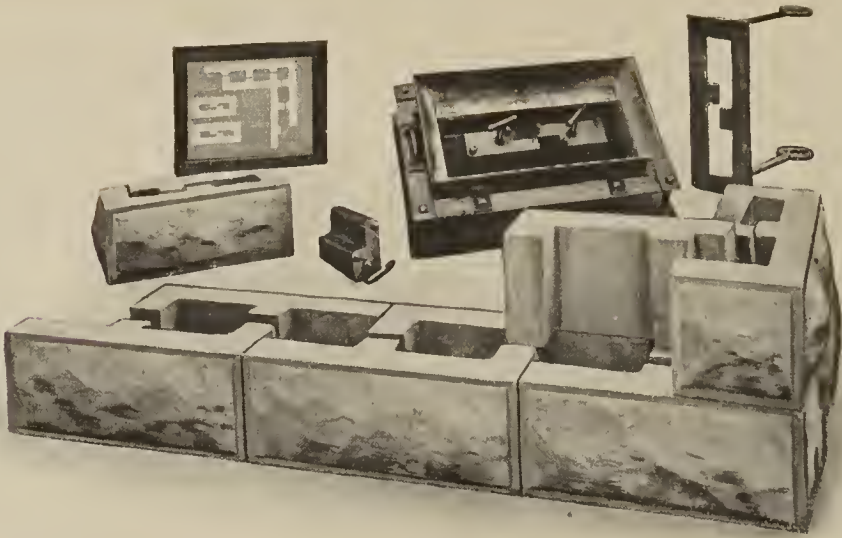
Four moulds are required; base, capital, necking and shaft. The latter can be furnished in either 2 ft. or 2 ft. 5 inch sections as specified.

Price includes core and follower for making shorter lengths.



Pedestal and Ball Hitching Post Mold

3 feet high. Base 15 x 15 in. \$25.00



The Two-piece “F” System

UNLESS otherwise specified, all machines are equipped to make the old reliable one piece hollow block with two cores and two insets, but the two piece “F” system will be substituted without extra charge when so ordered. We will also substitute staggered air space system, If more than one system is desired with one machine, there is an additional charge for the extra cores, tamping plates, etc.



FIRE PROOF

The above cut shows the business center of the town of Carbon, Indiana, sixteen miles from Terre Haute, as it appeared the day after the terrible fire of March 27, 1905. There was only one building of concrete blocks—this one building withstood the flames. It was the State Bank Building and was not injured beyond the woodwork in the windows and doors, and nothing inside was materially damaged or destroyed, while brick buildings on the other three corners and at its side were burned to the ground.



A SILENT
TESTIMONIAL
 CONCRETE
 VS
 BRICK.

FIRST STATE BANK

INCORPORATED
 CAPITAL STOCK \$25,000.00

Carbon, Ind. April, 29, 1906.

The Pettyjohn Company,
 Terre Haute, Ind.,
 Gentlemen:-

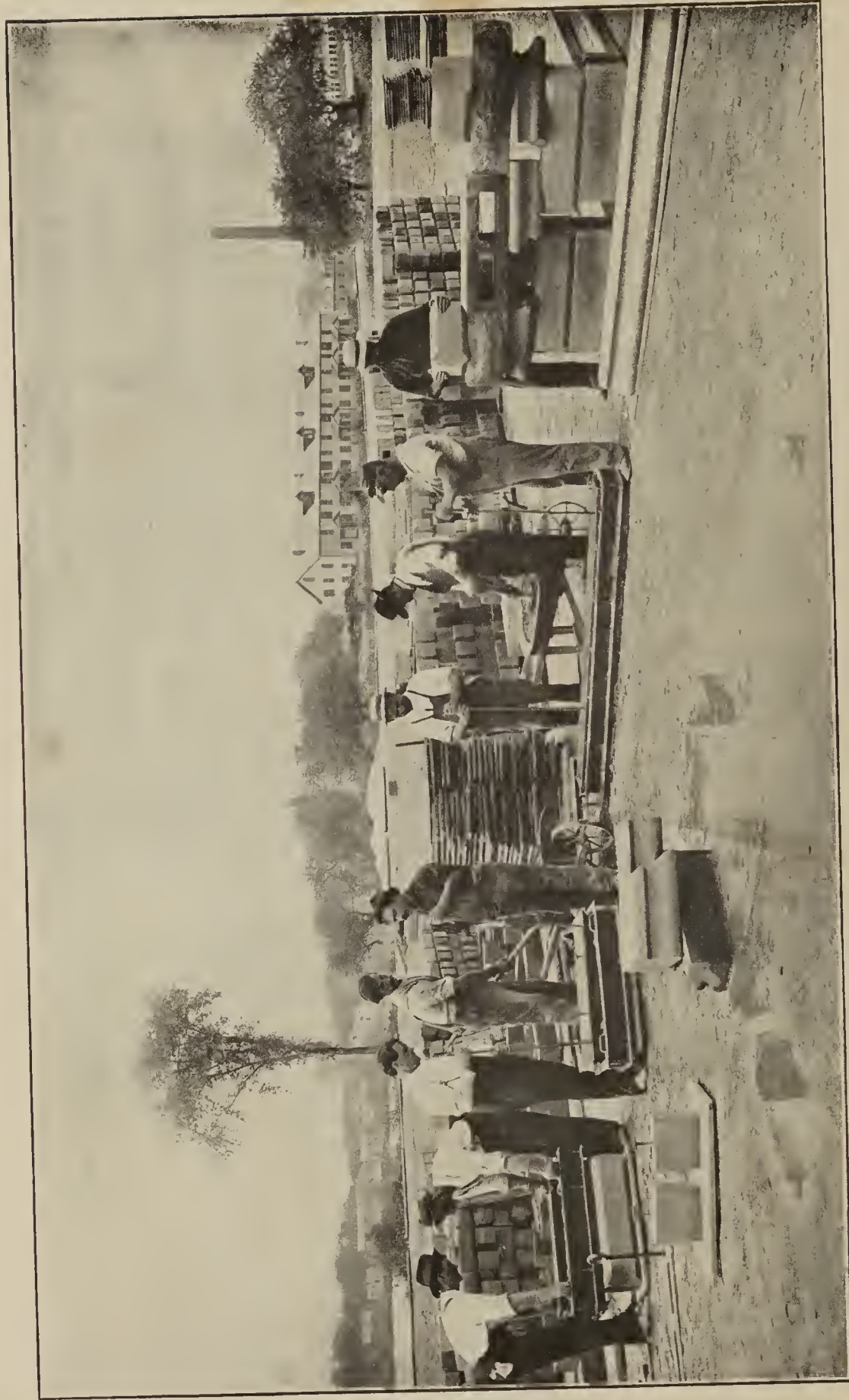
In the fire of March 25, we were the only one that had a building strong enough to withstand the awful fire. We were in, what was considered, the very thickest of the fire. There was a large frame building just across the street south of us and another on the opposite corner, the opera house across the street east with the furniture store of Siner & Peil and the Grosius Dry Goods Co.'s on the first floor, which made an awful fire. Just 22 ft. north was the Oddfellows building containing, on the first floor, the \$15,000.00 stock of merchandise of the Carbon Mercantile Co. The last two named buildings were of brick and all four of them were burning at the same time, making the heat so intense that it was next to impossible for the most skilled firemen to get to our building.

The building is constructed of 10 x 10 x 30 in. concrete building blocks and by that and nothing else we are congratulating ourselves on not losing a single days business from the fire. The only damage done our building was the breaking of the windows.

There was no attempt made by the firemen to save our building until after the surrounding buildings had fallen in, as every one considered it impossible to save it.

It is unnecessary for me to say that we are very much in favor of concrete building blocks for fire protection.

Very truly yours,
Wm. K. Palmer, Cashier



Making Blocks for Electric Power Plant with Pettyjohn Machinery

Courtesy of Pittsfield Electric Co., Pittsfield, Mass.

The Portable Facing Models

Our facing model machines are in many respects similar to the Upright Model, but unlike it, they mould the blocks with the face down and the cores are inserted through openings in the side of the machine. With this model, instead of metal

face plates we use granular concrete face plates, which have been previously moulded from natural pitched stone, thus producing blocks with a granular look, texture and feel in absolutely perfect imitation of the natural stone originals. These face plates also serve for pallets and are water-proofed with a special formula which will prevent the block sticking to the face plate. The blocks are allowed to remain on them till set. The face is usually made about half an inch thick of rich, fine or colored material, while the balance of the stone may be made with quite large gravels or broken stones. The most elaborate, special and ornamental effects can be produced in this way, as all that is necessary is to get or make one original, which may be of



stone, wood, plaster of Paris or pressed metal of the shape, size and design desired, and from this the concrete face plates are cast and thus hundreds of thousands of the ornamental stones may be easily produced with little trouble or expense. The cut shows several stones, the originals of which were pressed or embossed zinc forms such as can be obtained from the tinner or dealer in architectural supplies. We carry in stock hundreds of similar ornamental forms.

Another advantage of this process is, that while setting, the face of the stone is protected from washing by rains, injury by small animals, and above all, from drying out too fast and sudden changes in temperature.

Blocks so made are *self bleaching* and are practically cured with the face in water, as the face plate is water-proofed and concave, and when sprinkled the water can penetrate downward only as far as the face plate, thus acting like a sponge in a cup of water, no water visible but constantly wet. This bleaches the face of the block to an almost pure white when made of materials that ordinarily would be gray.

This whole subject is of great interest and is explained in detail in another booklet called "MAKING FACES," and which will be sent to any address upon request.

We also manufacture a face down machine for general use known as the Invincible, described on Page 37.



The Pettyjohn Sill and Cap Machine



THE Pettyjohn Sill and Cap Machine is operated on the principle of “move the machine, not the block,” which is recognized as being the best and most scientific method of moulding concrete blocks, and this is especially true of such long and heavy shapes as sills, lintels, caps, copings, water tables, steps, posts, etc., etc.

Just imagine taking one of these long, heavy shapes and rolling it over a time or two, and then attempting to off-bear it!

When green concrete shapes, which have no more strength than so much damp sand, are subjected to this kind of treatment it is no wonder that many of them are broken—the surprising part is that any are safely landed.

These machines can be made to order in any size or width and adjustments desired. The stock size is 7 feet long and 7½ inches deep, and ends are sent for making 4, 7½, 8 and 12 inch widths.



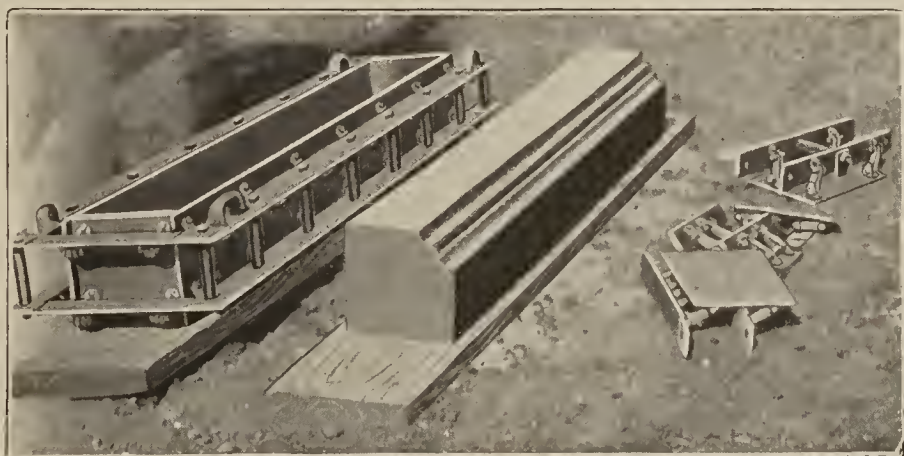
Any of the ends sent with the Sill and Cap Machine can be used in connection with the sides of the standard size block machine and vice versa. For example, the 4-inch ends mentioned above could be inserted in the sides of a standard size block machine for rapidly moulding backing-up stones $4 \times 7\frac{1}{2} \times 20$ or the 8-inch ends can be used for moulding 6-inch hollow blocks with any of the face plate designs occupying the extra two inches. The same ends would be used for moulding 8-inch smooth face blocks for inside partitions, etc.



Egg and Dart Coping

Price for stock size including adjustments, tampers, ornamental and chamfer copper covered moulding, bold egg and dart coping pattern, etc., is only \$70.00 f. o. b., Terre Haute.

Every well equipped block plant needs one and we will ship on approval, subject to trial.

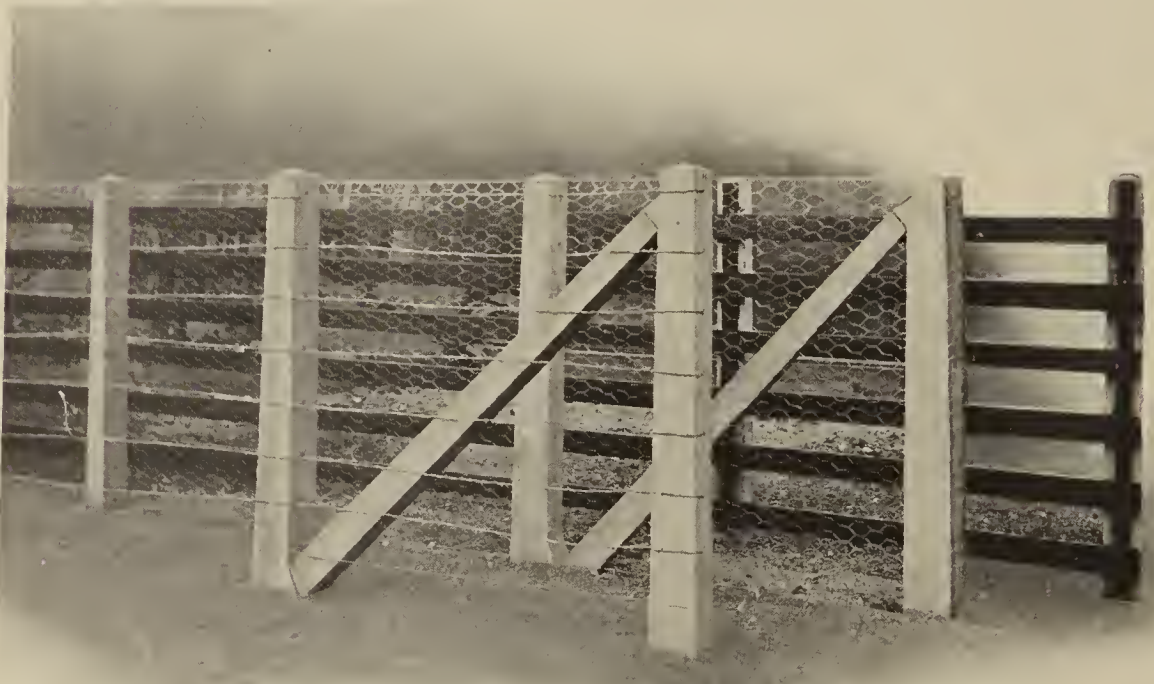


Pettyjohn Portable Post Machine

THE MANUFACTURE OF CONCRETE FENCE POSTS

CONCRETE is one of the most enduring materials made by man and therefore especially suitable not only for buildings, but for fence posts which frequently mark the boundary line between properties.

The industry of manufacturing concrete fence posts is yet in its infancy; but it is growing with tremendous strides as the farmers and property owners become acquainted with their many points of superiority. It is the wise farmer who uses the handsome, durable, frost-proof, fire-proof, rot-proof, time-proof, ever-lasting concrete posts. Weeds, leaves and trash that usually accumulate around fences may be burned without the slightest injury to the posts.



One fact has been conclusively proven, and that is that when once a farmer has commenced to use concrete posts he will have nothing more to do with the unsightly, rotting, tumble-down, wood posts and his neighbors will soon profit by his good example. Even were he willing to use the wood he would be confronted with the scarcity of lumber, its rapidly increasing price and the uncertainty of getting a really good quality at any price.

As neither frost nor freezing have any effect on concrete, the posts are good for a lifetime—

and practically everlasting. In many localities the concrete is equally as cheap as a wood post, but in comparing prices it should be taken into consideration that the first cost is not the only cost, as when a wood post rots away not only is the value of the post lost, but also the time and labor of digging the hole and setting the post to correct position, together with such annoyances or casualties as may be caused by the absence of the fence. Also there is the loss of the wire that is pulled down, tangled or destroyed during the process of decay. Did you ever see a post rot off at the ground and the fence hold the post up? It takes a pretty good fence to stand such a strain, but if concrete were used the post would hold the fence and the fence would hold the stock.

Do appearances count for anything? Doesn't it look good to the eye to sight down a long line of fence and see all of the posts just alike, straight and true, all lined up nicely like soldiers marching on to victory? Their clean-cut look and light grey color is pleasing and somehow they just naturally give an air of prosperity to a place. They look like business; look like there was something doing. Any kind of fence may be attached; plain wire, barbed or twisted wire, woven wire, wooden slats or pickets. It is all the same to the post.

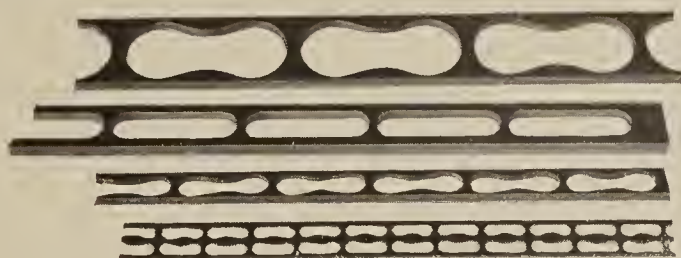
The illustration shows the general appearance and method of attaching several different kinds of fences. Usually the corner post and the one next to it are made extra heavy and have brace posts between them to stand the pull of the wires. The slats of the wood post shown are nailed to an upright 2 x 2 which is bolted to the post with $\frac{3}{8}$ -inch bolts and nuts. By this means the entire fence can be moved away in sections if desired, simply by taking out two bolts at each post. The posts are moulded with holes in them at intervals and attachment is made simply by bolting through these holes. We can furnish bolts and nuts at a very close price. Wire fence is attached by running a short piece of wire through the holes and twisting to the wire of the fence. The holes cost nothing and wire but little more, so there is no expense for any kind of fastening attachments.

C O S T

The cost of a good concrete post, including sand, cement, labor, and reinforcing, would be from 20 to 35 cents, depending upon size, local conditions, proportion and quality of material. In same locality a good wood post would cost more and a poor wood post isn't worth buying or planting.

REINFORCING

Like natural stone, concrete is brittle and posts might become broken should a heavy animal run against them. For this reason they are reinforced with some form of metal and barbed or

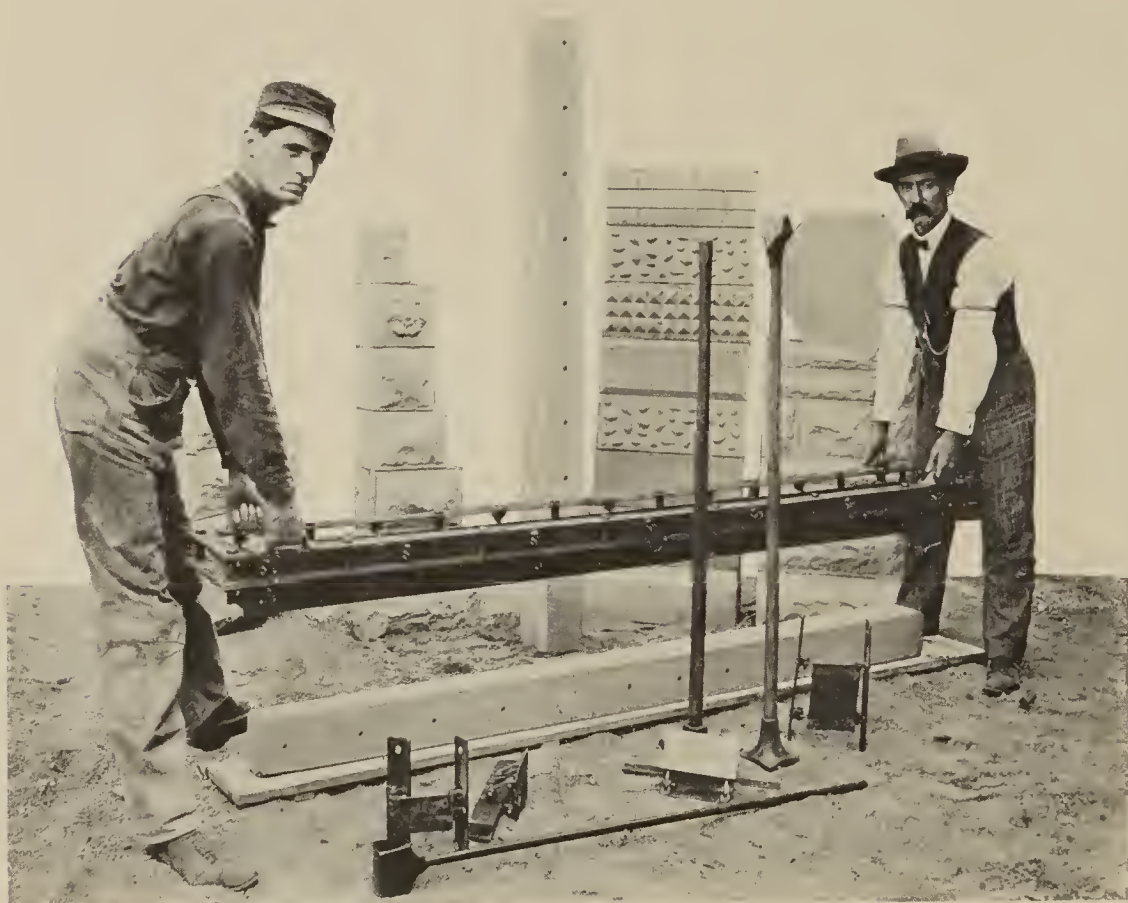


twisted wire is frequently used. However, we have a special reinforcing that is admirably suited to the purpose.

It is in the form of high grade steel bars with a series of perforation It has therefore great

strength, but is very light in weight. It is a waste product produced in the manufacture of our machinery and can be furnished in any quantity desired and almost as low as the price of junk or scrap iron. The price is $1\frac{1}{2}$ cents per pound in less than ton lots and $1\frac{1}{4}$ cents per pound in lots of a ton or more. We ship it in bright steel, neatly wired in bundles. It is turned out in a number of different sizes, different styles of punching and lengths varying from 6 to 8 feet. We ship it assorted which is usually desirable for the purchaser, but we cannot ship it all one size, except at increased cost for the trouble of separating. When reinforcing is used, the post would hold firmly together even though broken and would be practically as good as ever. Even the injury to appearance is slight as the crack would barely show.

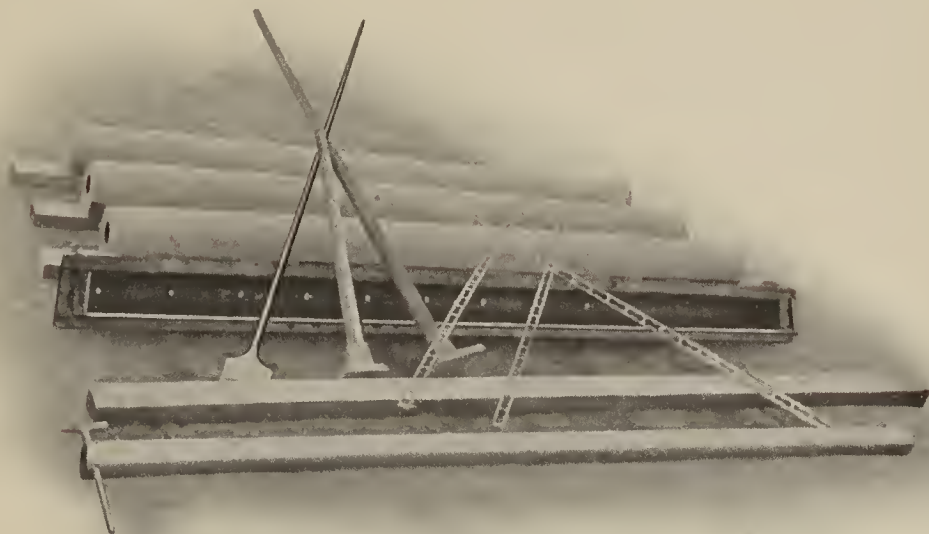
Concrete posts cannot be successfully moulded in any kind of machine or device that requires the post to be moved while it is green. The Pettyjohn machine works on the principle of "move the machine, not the post." This makes every post perfect and saves the labor of off-bearing.



Pettyjohn Portable Post Machine

The stock size for this machine is 7 feet long and 5 inches deep. It is provided with three pairs of interchangeable ends so that posts may be made 3 x 5, 5 x 5, or 5 x 7 or tapering from any one of these sizes to any other. The line post is usually 5 x 5 inches at the bottom and 3 x 5 inches at the top and seven feet long. Shorter posts may be made by blocking off at either end. Smaller posts

may be made by letting pallets go up in the machine any desired distance. Any number of fastening holes desired may be put in. Edges of posts may be chamfered, or not, as desired.



Pettyjohn Mould for Round Hollow Posts

This is something new, just out, intended solely for making posts and makes them perfectly in one size only. Just the thing for farmers. Posts can be moulded by the hands during bad weather or slack seasons.

The hollow is a very desirable feature and has the same advantages as the hollow in a building block. It saves material, lightens the weight and is the strongest shape for amount of material used that could be devised.

This is the first successful attempt to make a mould that would turn out hollow posts; but it works perfectly and is a winner.

The shape is not exactly round, but is round on one half and hexagonal on the other, making an unusually handsome and attractive appearance and providing a flat side in case such should be desired.

Wood pallets used are ordinary 2 x 4's and can be had at any lumber yard. Stock size of mould is 7 feet long and 5½ inches diameter. Posts may easily be made shorter, but diameter cannot be changed. Fence is attached by means of holes moulded through the posts, or by corrugations or ribs on the outside of post, as may be preferred. Posts can be made hollow or solid as desired. We are anxious to introduce these moulds in all parts of the country as rapidly as possible and to that end, offer them at a specially low price.

Sidewalk Block Machine

CONCRETE sidewalks have proven their utility and desirability to such an extent that they are now used almost exclusively in all parts of the world.

There are two methods of laying these walks;—laying the walk in place and moulding the blocks separate, and each has its distinct advantages. Laying in place is usually considered the most economical, but it is a class of work that cannot be done, except by skilled concrete workers and finishers, while machine moulded blocks may be manufactured and afterwards laid by comparatively inexperienced persons.



In many localities the soil lacks drainage and made-in-place work cannot be successfully accomplished without danger of freezing beneath the walk and thus ruining its appearance with unsightly, irregular cracks. Roots of trees also form a similar trouble, but if the walk is laid in separate pieces, such troubles are largely avoided. In case of freezing the separate pieces will afterwards settle back to place and with roots one or more of the blocks may be removed, the root cut away and the stone replaced, thus restoring the walk without injury.

The Pettyjohn Sidewalk Block Machine works on the collapsible principle previously described and moulds the blocks accurately and rapidly. The surface of the block is usually made of a rich, wet mixture and troweled to a slick finished surface. The edges may be rounded or not, as desired. The stock size machine makes blocks 20 x 20 x 4 inches thick, or less if desired. Reduced thickness is accomplished by allowing the pallet to go up into the mould box any given distance. Special size machines made to order.

The equipment includes the machine, set of hexagonal block attachments, tamping rods, rammers, float, trowel, edger and sample pallets.

Price complete \$30.00 f. o. b., Terre Haute, Ind., guaranteed to give satisfaction.

The Pettyjohn Veneer Machine

VENEER blocks are very popular and useful, not only for new structures, but for veneering old frame or brick buildings, thus making them new on the outside and greatly adding to their appearance and value.



Moulding

Any of the holiow block machines of our manufacture will make veneer blocks, but if they are desired in large quantities at minimum cost it would be advisable to have a machine designed especially for that purpose.

The Pettyjohn Veneer Machine thus fills a long felt want and is the most rapid machine for strictly veneer work that has ever been devised.

In operation, a face plate is put in the bottom of the mould box, facing material put in about half an inch thick and balance filled up with coarse wet grout and then top struck off. Machine is then turned upside down and lifted away from block on collapsible principle, thus moulding blocks with face down and releasing with face up.

The stock size makes veneer blocks $7\frac{1}{2} \times 20 \times 3$ inches thick.



Releasing

Price, including face plates for stretcher corner, halves and inside corner, is \$35.00, and includes tamper, rammer, float, trowel and all necessary equipment.

Size for $8 \times 15\frac{3}{4} \times 3$ inches thick is \$30.00.

Size for $8 \times 23\frac{3}{4} \times 3$ inches thick is \$40.00.

Size for $8\frac{3}{4} \times 29\frac{3}{4} \times 3$ inches thick is \$45.00.

Size for $10 \times 31\frac{1}{4} \times 3$ inches thick is \$50.00.

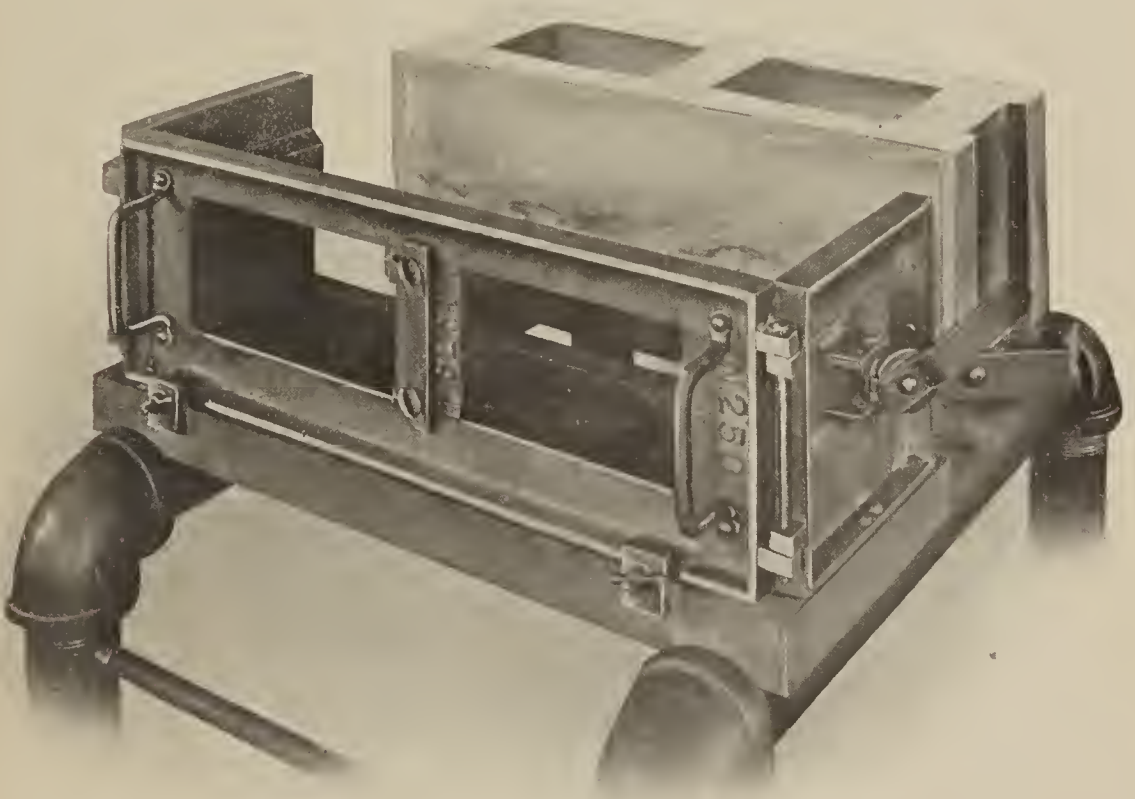
Special sizes made to order at proportionate prices. If any thickness other than 3 inches is preferred, there will be no extra charge.

The Invincible Face-down Machine

WE HAVE recently put upon the market a new type of machine which is the embodiment of five years' experience in the manufacture of concrete blocks and block-making machinery.

It is known as the Invincible Machine and combines all of the advantages and adjustments of the high priced machines, and yet, owing to its simplicity and ease of operation, is not only desirable for those who manufacture the blocks for the market, but is very suitable for any one desiring to make blocks for their own buildings.

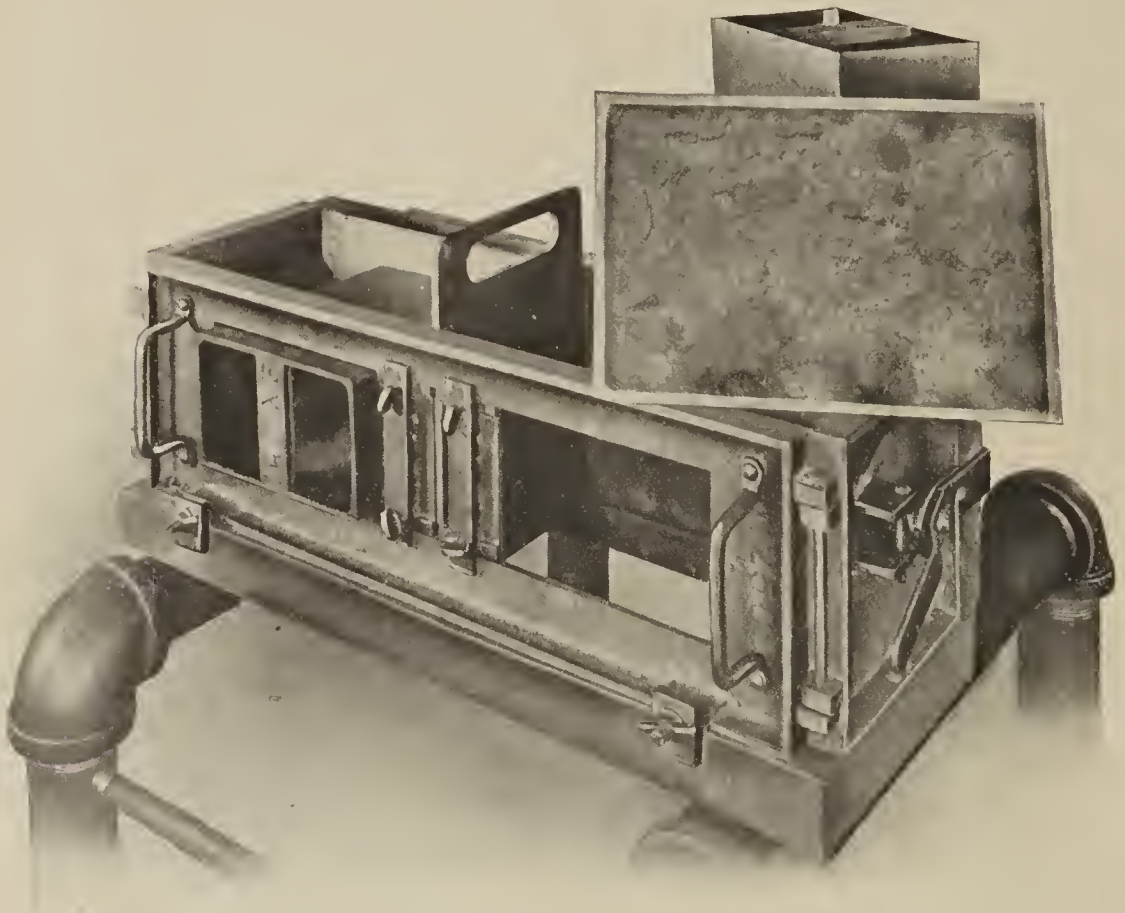
There are two types of block machines, each of which has its adherents, and each of which has advantages peculiar to itself and not entirely possessed by the other. They are generally known as side-face and down-face machines, and the Invincible is of the latter type. The advantages claimed



THE INVINCIBLE—Showing Stretcher Stone Delivered

for models of this type are that a richer and stronger face can be used, thus giving a very high grade surface to the block without a corresponding expense for the entire product. It enables the use of coloring matter without the expense for the coloring throughout the product, and likewise it admits of the use of water-proofing compound with the greatest economy, though many of those who make water-proof blocks prefer to put the water-proofing material throughout the entire product.

The greatest practical advantage of this type of machine is the fact that the facing can be used dry enough to prevent sticking to the face plates while the backing or grout can carry a large percentage of water, and it is well known that it takes water to insure perfect crystalization and a perfect product. The excess of water will very soon penetrate the dryer facing thereby giving even the facing material all the water that it needs and yet this penetration does not take place until after the block has been moulded and removed which prevents any possibility of sticking.



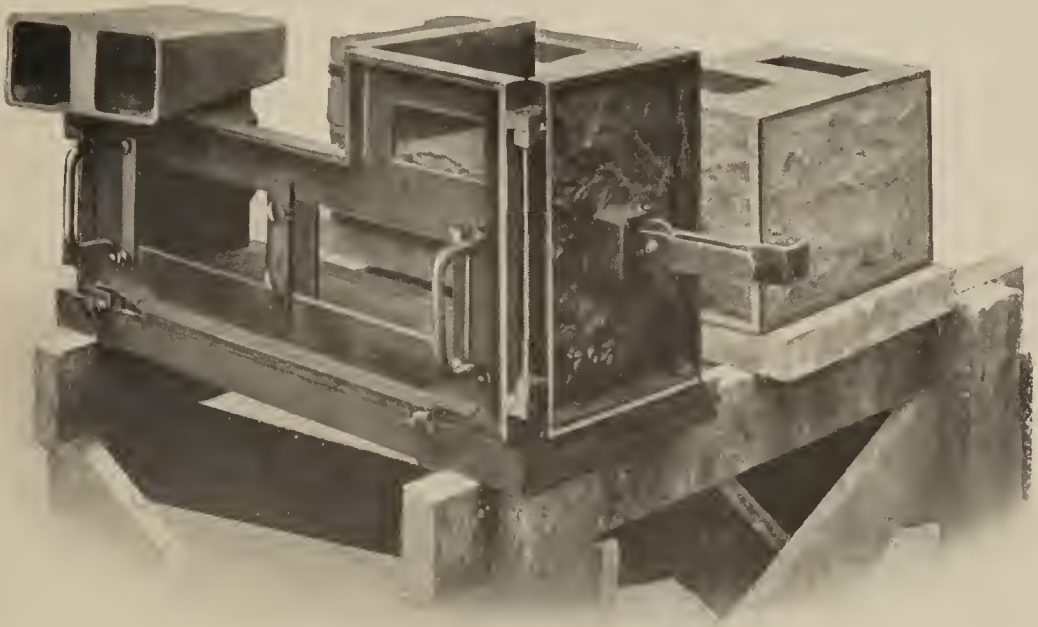
THE INVINCIBLE

Set up for halves. One side has face plate and core inserted, while the other side shows face plate and core removed. Note the substantial dividing plate and arrangement of core spacers which also hold the dividing plate in position

In operation the machine is set up and blocks are moulded with the face down. First, a thin layer about half an inch thick, of the face material is put in, and then the mould box is filled up to the level of the cores. Cores are then inserted, the filling completed, and the top struck off with a strike stick in case plastering is to be done to the backs of the blocks. If the backs of the blocks are to be exposed to view a little additional facing can be put on and the surface given a steel trowel finish, or what is sometimes called a sidewalk surface. The machine is then turned over one quarter turn and the cores withdrawn in a perpendicular direction. This is a very essential feature to which

we invite particular attention. In machines of the face-down type where the cores are withdrawn before the turn, there is a tendency for the material above the cores to sag, which frequently weakens and damages the blocks, and sometimes destroys them altogether so that for the successful and profitable manufacture of blocks which are moulded face down and have to be off-borne, it is very essential that the cores be not withdrawn until after the turn. The machine is now released and set in place ready for the next block, and the product is found delivered with face on side in absolutely perfect shape. It is then offborne to a convenient place on the yard or put up in racks according to the yard arrangement provided.

In the way of adjustments the Invincible Machine is extremely versatile. One of the most important features is that the face plate portion is not all in one piece, as is customary with machines of this type, but the face plates proper are quite thin and only as large as the face of the stone. They set down



THE INVINCIBLE

Showing L-shaped corner delivered. This cut also shows smaller width cores than the others. We carry three widths for 8-inch blocks, viz: $3\frac{1}{2}$, 4 and $4\frac{1}{2}$ inches.

in the frame like a pane of glass in a sash, and a e securely locked with merely a turn of a thumb screw. From this it follows that the expense of getting additional face plates and the trouble of changing from one face plate design to another are both materially reduced, and in addition to this it enables the face plates to be shifted and moved around in all sorts of ways for the production of stones of special or unusual shapes. The face plates may be put in any part of the frame desired and slid about from one part to another. They may be laid in the frame horizontally, or set up perpendicularly, or even placed at any angle desired.

For making stones that are rock faced on 2, 3 or 4 sides, or that have special angles or outlines, it is a very desirable feature, and one that is possessed by no other line of machinery except those of the Pettyjohn portable type, which are described in a separate catalog.

Invincible face plates are interchangeable for all the different machines ; for example, a stretcher face plate for the 16-inch Invincible is a $\frac{3}{4}$ plate for the 20-inch machine, or a $\frac{2}{3}$ plate for the 24-inch; also it can be used for making 16-inch blocks in the Tandem Invincible.

The Invincible is provided with core spacers, so that it is not necessary to use the same size cores but different size cores may be used in the stretchers, corners and halves when desired, and fractionals of any length wanted may be easily made simply by inserting in the frame the face plate of the desired length and using the core to match, and arranging the core spacers so as to place the webs exactly where desired, and in this way an architect's plans can be most accurately followed, and anything called for may be turned out in a workmanlike manner at a minimum of expense.

The shifting of the core spacers is accomplished merely by the turn of thumb screws which locks them very rigidly to place.

By means of these various adjustments the Invincible will make the L-shaped or straight bond corner with equal facility.

Another highly important adjustment which is possessed by no other machine with which we are familiar is the capacity to make with the same face plates and same machine, blocks of varying heights. This is of extreme importance, but has heretofore been practically impossible of accomplishment. As a rule the height of blocks is based upon working with other materials most frequently used in a given locality, and in many places the size of the local brick is a determining factor. In other cases it is desirable to have the blocks work with certain sizes of lumber, or with hollow clay tile, and it is impossible to get any one dimension that will meet these various conditions, and especially so since the size of common brick vary in different localities. Three courses of common brick will measure from $7\frac{1}{2}$ to $8\frac{1}{2}$ inches, and we can furnish the Invincible so as to make blocks of any height desired between these extremes, or if the same machine is desired to make more than one height block it would only be necessary to purchase two or three extra doors at small additional expense. Since the same face plates are used in all cases the result is, of course, accomplished by adding to or taking from the margin of the block.

For example, the $7\frac{1}{2}$ -inch block would have no margin whatever. The 8-inch would have $\frac{1}{4}$ inch margin, and the $8\frac{1}{2}$ -inch would have a $\frac{1}{2}$ -inch margin at both top and bottom. Change from one height of block to the other may be accomplished in a few minutes. Unless otherwise specified, the Invincible is shipped out for making blocks exactly 8 inches high in the wall. In other dimensions, however, it is figured a quarter of an inch scant in order to make allowance for mortar joints.

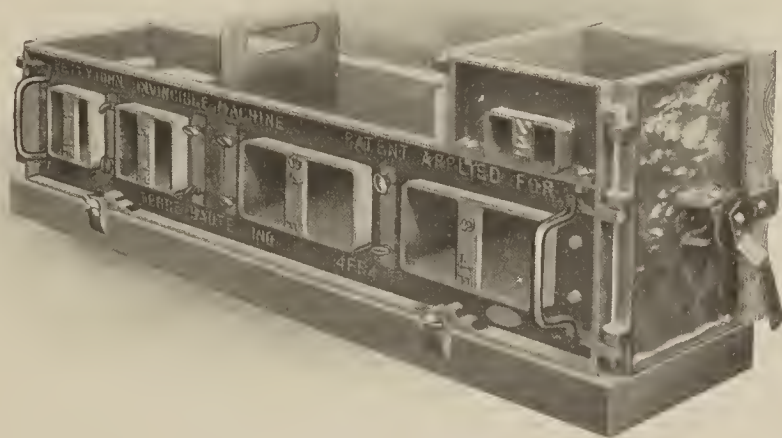
The stock size of the Invincible is 8 x 24 inches, less allowance referred to, and since the machine is a strictly high grade machinist's job, and all parts are finished up on planing and milling machines it will mould the blocks absolutely and perfectly square and true and of exact dimensions intended.

The price varies with the size of machine and the volume of equipment. The price for the 8 x 8 x 24-inch machine with equipment capable of making stretchers, corners, halves and in-corners in both rock and smooth face designs is only \$50.00.

A larger equipment making fractionals of all lengths, varying by two inches, is \$75.00, and a still larger equipment arranged for making everything heretofore mentioned as well as circles, bay window angles, flues, piers, pilasters and dozens of other shapes too numerous to mention, would vary from \$100.00 to \$125.00, according to the number of face plates, cores and other accessories required. Itemized list of these various equipments will be found on pages 46 and 47.

The Invincible is also manufactured and carried in stock for making blocks 16 and 20 inches long, and the Tandem Invincible is especially a desirable machine for producing block in large quantities at a minimum of expense. It is 40 inches long, and makes two 20-inch blocks at once. This

economizes the labor of off-bearing as two men can off-bear the two 20-inch blocks in the same length of time that would be required for one 24-inch block, thus effecting a gain of 16 inches in every off-bearing trip.



THE TANDEM INVINCIBLE

Set up for making one 24 inch L shaped corner and one 16 inch stretcher at same operation.

The Tandem Invincible will, of course, make one 16-inch and one 24-inch block at the same operation, or any other fractional combination. The prime advantage of the 24-inch block is that it runs in even feet in the wall while the principal advantage of a 20-inch block is that it can be handled and laid in the wall by one man. Since the Invincible makes both with equal rapidity, it is very desirable to have on any block yard.

The prices for the Invincible in the different lengths mentioned is in exact proportion to the price for 24-inch machine, and can thus be approximately figured by any one. Like other machines of our manufacture, the Invincible will be sent on 15 days' trial absolutely guaranteed to give entire satisfaction, the purchaser being the sole judge, and no strings are tied to the proposition beyond the usual commercial assurances of responsibility when cash does not accompany the order.

Prices mentioned include face plates, cores, insets, doors, dividing plates, core spacers, tamping rods and rammers, off-bearing poles and other accessories necessary. They do not include the horses upon which the machine rests or the wooden pallets, except samples. Both the latter are most economically made locally, and this also saves freight, but can be furnished by us at additional price when so ordered. The pallets are merely pieces of board, 2 x 8 inches, and the stand may be merely two wooden carpenter's horses nailed together. We can furnish a very substantial stand made of wrought iron pipe at \$10.00 additional.

The Invincible is the only machine made that will turn out two half-height stones at one operation. These stones are sometimes known as 4 in. courses or "spits," and as they afford much relief from the monotony of a repetition in size they are very popular with both architects and builders, and the ability to turn them out without extra cost and two at a time is an important and valuable feature of the Invincible. The half height face plates, doors and other accessories are not included in the regular equipments, but may be had at a price of \$10.00 for 16 in. machine and \$15.00 for 24 in. machine.

Bear in mind that while the Invincible is an off-bearing machine, it avoids all the defects of other machines of that type, the most usual being the drawing of the cores before the turn, with consequent sagging of material above them and the weakening of the block; the rigidity of the cores which prevents tamping of material beneath them; and a jarring during the withdrawing of the cores, the turn or the release, which injures and weakens the block. None of these faults are found in the Invincible and every block can be successfully off-borne in perfect condition.

Cost of Machines

AS OUR machines are sold strictly on their merits and as we make no ridiculous charge for the so-called "exclusive privileges," we are enabled to sell them at a figure that is within the reach of everyone.

While the majority of them are sold with a view to establishing plants to supply the market, we sell many of them for private use. Contractors buy them to make blocks for their own work; real estate men buy them so as to build quickly and boom their properties; dealers in builders' supplies buy them so as to have work for their employees during slack times; brick yards find them useful in converting the rainy-day and break-down losses into profit as well as to use the stones for the foundations and ornamental work of their brick buildings.

With such a varied class of users the number of machines and necessary equipment will, of course, vary. Let us know what capacity is desired and what size blocks are to be made and we will take pleasure in suggesting what would be a suitable equipment and make prices on same. In all cases our prices are only from one-half to one-tenth the prices charged by the manufacturers of other machines and none of which will equal ours in either speed or class of product.

Considering the fact that our machines are manufactured under very valuable patents, and are made entirely of high grade steel except the face plates which are of malleable casting, the price asked is remarkably low. The machines are indestructible and practically non-breakable. We replace free of charge any part that may break within one year, but such breakage is highly improbable. Competing machines are made of ordinary brittle cast iron.

In order that an idea may be had as to the prices, we give herewith a price list applying to the standard and to the others sizes which we carry in stock.

For those who wish to manufacture blocks for their own use, or wish to test the possibilities of the enterprise as a money making business, but who do not care to incur much expense at the beginning, we would suggest the advisability of purchasing the Invincible face-down machine, with the smallest equipment suitable for square work, with dies for both smooth and rock-face designs, at a price as low as \$35.00 for the 16-inch length, \$50.00 for the 24-inch length, or \$65.00 for the Tandem Invincible, which is 40 inches long and makes two 20-inch stones at one operation.

About "Territory"

WE DON'T deal in it. Our business is conducted on legitimate lines only. We simply sell so much machinery, so many iron face plates, pallets, etc., for so much money—no territory, wind or atmosphere.

So much annoyance and useless litigation has been caused by the sale of exclusive territory in connection with the earlier machines, that we have determined to keep our machines free from it.

At best it is a decided disadvantage to the purchaser, for in order to be at all effective, it must be mutual and restrictive both ways, so that entering into an agreement of this kind the purchaser would have to agree not to sell outside of his territory, while at the same time he would not be protected from competition using any one of a dozen different machines or systems.

It is our policy to avoid having our machines come into competition with each other, but in the very nature of the case it is impossible for us to entirely prevent it, as the machines are easily moved from place to place and the owner of a patented article has a right to use it where he pleases. It is to the owner's interest to have enough machines to supply the market and he usually does so. If such a policy is pursued it does not invite competition, and we do not advertise locally, send agents or make any effort to sell machines that would compete in the same market.

Our machines are in very general use, and are sold all over the world and in many cases through agencies or branches without our knowledge. We simply have no means of controlling the final destination of the machines we manufacture and cannot absolutely agree to give anybody anywhere any exclusive privileges whatever.

Any manufacturer of this line of machinery offering exclusive territory for his make of machines and accepting any money therefor, is simply taking the money for nothing or else sells so few machines that he can control their destination. In the latter case the "privilege" is worth nothing, as it is not likely that another machine would reach a given locality anywhere.

PRICE LIST

The Standard Size--Upright Model

See pages 8, 9

The standard size Upright Model with Equipment "A" (limited equipment).....	\$100.00
The standard size Upright Model with Equipment "B"	125.00
The same with Equipment "C"	250.00
The same with Equipment "D" ..	275.00
The same with Equipment "B," but with sample pallets only and hardware for one hundred pallets	110.00
Any of the above equipments would be \$15 less if ordered with sample pallets and hardware for one hundred pallets, instead of one hundred complete pallets.	
Additional standard size machines, with two cores, hopper, two insets, two tamping plates, two tamping rods and hardware for one hundred pallets *for increasing capacity of plant, each	70.00
Standard size pallets complete, per hundred.....	20.00
Pallet hardware only, per hundred pallets.....	5.00
Extra ends, cores, hoppers, tamping plates, rods, etc., for 12-inch adjustment equals 14-inch smooth face	35.00
Any other width adjustment desired, same price.....	35.00
Machine with standard size face, but for wider walls may be substituted at same prices as above.	
Machines with $7\frac{1}{2} \times 23\frac{3}{4}$ face and for any width wall can be furnished at prices 20 per cent. higher than above list.	

The "32-inch"--Upright Model

Machines for block with $10 \times 31\frac{3}{4}$ face x 10-inch wall (or wider if specified) and equipment equivalent to "A"	175.00
Same with equipment equivalent to "B"	225.00
Reduction on 32-inch size if pallets are omitted and hardware and sample pallets substituted is	25.00
Additional 32-inch machine with three cores, hopper, two insets, two tamping plates, two tamping rods and hardware for one hundred pallets.	125.00
Pallets for 32-inch size block complete, per hundred	30.00
Machines with $8\frac{3}{4} \times 29\frac{3}{4}$ face and for any width wall can be furnished at 10% less than above list.	

Special Machines

Sill and Cap Machine—see description on pages 28 and 29	70.00
Fence Post Machine—pages 30 to 33.....	50.00
Sidewalk Block Machine, $4 \times 20 \times 20$ (no extra charge for minor variations in dimensions), see page 34.....	30.00
Facing Model Machines, (see page 27), price per set of three machines with accessories, etc. See special catalog "Making Faces".....	200.00
Veneer Machine, see pages 35 and 36.....	30.00 to 50.00

Equipment "A"

For Upright Models

- | | |
|---|---|
| 1 pair standard cores, $4\frac{1}{2} \times 6\frac{1}{2}$, | 2 rock-face plates for stretchers. |
| 1 tamping plate for stretcher stones. | 1 rock-face plate for long side of corner. |
| 1 tamping plate for corner stones. | 2 rock-face plates for short end of corner. |
| 1 tamping plate for half stones. | 2 rock-face plates for halves. |
| 1 tamping rod, $4 \times 1\frac{1}{8}$. | 2 steel dividing plates. |
| 100 standard size pallets. | |

This equipment is not intended for the establishment of a plant to put the blocks on the market, but may be purchased by persons desiring to make the blocks for their own use with first-class machinery, but who are not particular about a great variety of shapes and designs.

In this or any other equipment another design, such as bevel edge, panel, pick point, etc., may be substituted for the design listed when requested.

If the pallets are omitted but sample pallets and hardware for one hundred pallets substituted, it lowers the price by \$15.00.

Equipments intermediate between those given here may be arranged by correspondence to suit the purchaser.

Equipment "B"

For Upright Models

- | | |
|---|---|
| 1 pair standard cores, $4\frac{1}{2} \times 6\frac{1}{2}$. | 1 rock-face plate for 45° angle octagon. |
| 1 tamping plate for stretcher stones. | 1 rock-face plate for broken ashler effect. |
| 1 tamping plate for corner stones. | 1 rock-face plate for flues, piers, etc. |
| 1 tamping plate for half stones. | 1 bevel edge face plate for stretcher. |
| 1 tamping plate for in and out 45° angle stones. | 1 bevel edge face plate for long side of corner. |
| 1 tamping plate for flues. | 2 bevel edge face plates for short end of corner. |
| 1 tamping rod, $4 \times \frac{3}{8}$. | 2 bevel edge face plates for halves. |
| 1 tamping rod $4 \times 1\frac{1}{8}$. | 1 bevel edge face plate for 45° angle octagon. |
| 1 smooth face plate for stretcher, etc. | 1 bevel edge face plate for flues, piers, etc. |
| 1 smooth face plate for end of corner, etc. | 1 chamfer plate for water table stretchers. |
| 1 rock face plate for 4-inch fractionals. | 1 chamfer plate for water table, right corner. |
| 1 rock face plate for 6-inch fractionals. | 1 chamfer plate for water table, left corner. |
| 3 rock-face plates for stretcher. | 1 blocking plate for inside corners. |
| 2 rock-face plates for long side of corner. | 1 blocking plate for inside and outside 45° angle. |
| 3 rock-face plates for short end of corner. | 2 steel dividing plates for halves and fractionals. |
| 2 rock-face plates for halves. | 2 electrotype cuts for advertising puposes. |
| 1 rock-face plate for circle, any radius desired. | |
| 100 printed circulars for advertising puposes. | |
| 100 standard size pallets. | |

This is the equipment that has been so widely advertised and is so well and favorably known throughout the world. It was sold almost exclusively before the issue of this catalogue and contains everything that is necessary for a thoroughly up-to-date block factory.

Equipment "C"

For Upright Models

Contains Everything Listed in Equipment "B" with the Following in Addition:

- 1 pair small cores, either $3\frac{1}{2} \times 6\frac{1}{2}$ or $4 \times 5\frac{1}{2}$.
- 1 tamping plate for stretcher, with small cores.

- 1 tamping plate for corner, with small cores.
- 1 tamping plate for half, with small cores.
- 1 rock-face plate for stretcher, making total of 4.
- 5 rock-face plates for circles, making total of 6.
- 3 rock-face plates for broken ashlers, making total of 4.
- 1 rock-face plate for 12-inch fractionals.
- 1 rock-face plate for 14-inch fractionals.
- 1 panel face plate stretcher.
- 1 panel face plate for long side of corner.
- 1 panel face plate for short end of corner.
- 2 panel face plates for halves.
- 1 panel face plate for 45° angle.
- 1 bevel-edge face plate with pick point surface for stretcher.
- 1 bevel-edge face plate with pick point surface for long side of corner.
- 1 bevel-edge face plate with pick point surface for short end of corner.
- 2 bevel-edge face plate with pick point surface for halves.
- 1 pick point face plate with tooled margin for stretcher.
- 1 pick point face plate with tooled margin for long side of corner.
- 1 pick point face plate with tooled margin for short end of corner.
- 2 pick point face plates with tooled margin for halves.
- 1 pick point face plate with tooled margin for 45° angle.
- 1 rosette face plate for stretcher.
- 1 rope and two bars face plate for stretcher.
- 1 rope and two balls face plate for stretcher.
- 1 large rope face plate for stretcher.
- 1 diagonal $\frac{3}{4}$ -inch broaching, face plate for stretcher.
- 1 diagonal $\frac{3}{4}$ -inch broaching, face plate for long side of corner.
- 1 diagonal $\frac{3}{4}$ -inch broaching, face plate for short end of corner.
- 1 diagonal $\frac{3}{4}$ -inch broaching, face plate for half.
- 1 fleur de lis ornamental face plate for stretcher.
- 1 fleur de lis ornamental face plate for long side of corner.
- 1 fleur de lis ornamental face plate for short end of corner.
- 1 fleur de lis ornamental face plate for halves.
- 1 pyramid ornamental face plate for stretcher.
- 1 pyramid ornamental face plate for long side of corner.
- 1 pyramid ornamental face plate for short end of corner.
- 1 pyramid ornamental face plate for halves.
- 1 perpendicular beaded ($\frac{1}{4}$ beads) face plate for stretchers, long side and halves.
- 1 perpendicular beaded ($\frac{1}{4}$ beads) face plate for short end of corner.
- 1 pebble design face plate.
- 1 horizontal beaded, $\frac{1}{2}$ -inch beads, for stretcher.

This is an unusually complete equipment and puts a plant in a position to take work of the most elaborate character. It contains three or four times as many face plates as are ordinarily sent out with any other machine.

Equipment “D”

For Upright Model

Contains everything listed in Equipment “C” and 14 rock-face plates in addition, but of a different variety of rock-face designs. With the other equipments mentioned we usually send the rock-face with granular surface and $\frac{1}{2}$ inch smooth margin. These sixteen extra plates have slicker surface and no margin or draft. The lengths and assortment would be the same as shown under the rock face part of equipment “B.” Both styles of rock-face are much admired and each has its adherents.

PRICE LIST

Invincible Face Down Machines

(See page 37)

The 16-inch Invincible Machine for blocks 8 x 15¾ face for 7¾ wall.

With equipment JF	\$ 35.00
With equipment KF	50.00
With equipment LF	65.00

The 24-inch Invincible Machine for blocks 8 x 23¾ face for 7¾ wall.

With equipment AF	\$ 50.00
With equipment BF	75.00
With equipment CF	100.00

The 40-inch Tandem Invincible Machine for 2 blocks 8 x 19¾ for 7¾ wall.

With equipment SF	\$ 65.00
With equipment TF	150.00
With equipment UF	215.00

Any Invincible outfit for 9¾ wall instead of 7¾ add 10 per cent. to list.

Any Invincible outfit for 11¾ wall instead of 7¾ add 20 per cent. to list.

Adjustment for making blocks for a different thickness of wall on any Invincible machine may be had at small cost. Exact figures are governed by the extent of the change and whether different size cores are desired or not. Prices on application.

Equipment JF For 16-inch Invincible

Price, \$35.00

Arranged for stretchers, corners, halves, and inside corners, both rock face and smooth designs.

- 1 face plate holder, 16 inches.
- 1 regular back, 16 inches.
- 2 plain end doors, 8 inches.
- 2 inset plates, detached.
- 1 rock face end door, 8 inches.
- 2 rock face stretcher plates, 16 inches.
- 2 rock face half plates, 8 inches.
- 1 smooth face plate, 16 inches.
- 2 smooth face plates, 8 inches.
- 2 cores, 4 x 4.
- 1 steel dividing plate.
- 1 facing plate.
- 1 tamping rod.
- 1 sand rammer.
- 1 sample pallet.
- 1 carrier.

Core spacers, face plate clamps, floats eccentrics, and minor accessories.

Equipment KF For 16-inch Invincible

Price, \$50.00

Includes all items in JF and the following in addition. Adds face plates and cores for a complete line of fractionals, also for circles, flues, and piers.

- 1 rock face end door, 8 inches
- 1 rock face ¼ plate, 4 inches.
- 1 rock face ⅜ plate, 6 inches.
- 1 rock face ½ plate, 10 inches.
- 1 rock face ¾ plate, 12 inches.
- 1 core, 4 x 2.
- 2 cores, 4 x 3.
- 1 core, 4 x 5.
- 1 core, 4 x 7.
- 1 circle face plate, 3-ft. radius, 16 inches long.
- 2 wedges for above circle.

Equipment LF For 16-inch Invincible

Price, \$65.00

Includes all items in JF and KF and the following in addition. Adds angles, diagonal broaching design, circles, etc.

- 1 rock face angle adjustment for any angle, bay windows, etc.
- 1 plug for core openings.
- 1 angle dividing plate.
- 1 diagonal ¾-inch broaching face plate, 16 inches.
- 2 diagonal broaching half plates, 8 inches.
- 1 diagonal broaching door, 8 inches.
- 1 circle face plate, 6-ft radius, 16 inches long.
- 4 wedges for above circle.

Equipment AF For 24-inch Invincible

Price, \$50.00

Arranged for stretchers, halves, corners, and inside corners in both rock face and smooth designs, etc.

- 1 face plate holder, 24 inches.
- 1 regular back, 24 inches.
- 1 attachment for L-shaped corners.
- 2 plain end doors, 8 inches.
- 2 inset plates, detached.
- 1 rock face end door, 8 inches.
- 1 rock face end door, 12 inches.
- 1 plain end door, 4 inches.
- 2 rock face stretcher plates, 24 inches.
- 2 rock face half plates, 12 inches.
- 1 smooth face stretcher plate, 24 inches.
- 2 smooth face half plates, 12 inches.
- 2 cores, 4 x 8.
- 1 core, 4 x 2.
- 1 steel dividing plate.
- 1 facing plate.
- 1 tamping rod.
- 1 sand rammer.
- 2 sample pallets.
- 1 off-bearing pole.

Core spacers, face plate clamps, floats, trowels, eccentrics and minor accessories.

Equipment BF For 24-inch Invincible

Price, \$75.00

Includes all items in AF and the following in addition. Adds face plates and cores for complete line of fractional stones, etc.

- 1 rock face 1-6 plate, 4 inches.
- 1 rock face $\frac{1}{4}$ plate, 6 inches.
- 2 rock face $\frac{1}{2}$ plates, 8 inches.
- 1 rock face 5-12 plate, 10 inches.
- 1 rock face 7-12 plate, 14 inches.
- 1 rock face 2-3 plate, 16 inches.
- 1 rock face $\frac{3}{4}$ plate, 18 inches.
- 1 rock face 5-6 plate, 20 inches.
- 1 core, 4 x 3.
- 1 core, 4 x 4.
- 1 core, 4 x 5.
- 1 core, 4 x 6.
- 2 cores, 4 x 7.

Equipment CF For 24-inch Invincible

Price, \$100.00

Includes all items in AF and BF and the following in addition. Adds angles, diagonal broaching design, circles, etc.

- 1 angle adjustment for any angle, bay window, etc.
- 1 plug for core opening.
- 1 angle dividing plate.
- 1 diagonal $\frac{3}{4}$ -inch broaching face plate, 24 inches.
- 2 diagonal $\frac{3}{4}$ -inch broaching half face plates, 12 inches.
- 1 diagonal $\frac{3}{4}$ -inch broaching end door, 12 inches.
- 1 circle face plate, 5-ft. radius, 24 inches long
- 1 circle face plate, 10-ft. radius, 24 inches long.
- 4 wedges for above circles.

Equipment SF For 40-inch Tandem Invincible

Price, \$65.00

Arranged for making two 20-inch stones at one operation, including stretchers, corners, halves, and inside corners in both smooth and rock face designs, etc.

- 1 face plate holder, 40 inches.
- 1 regular back, 40 inches.
- 2 plain end doors, 8 inches.
- 2 inset plates detached.
- 1 rock face end door, 8 inches.
- 2 rock face stretcher plates, 20 inches.
- 2 rock face half plates, 10 inches.
- 1 rock face plate for corners, 18 inches.
- 2 smooth face stretcher plates, 20 inches.
- 2 smooth face half plates, 10 inches.
- 2 steel dividing plates.
- 1 facing plate.
- 1 core 4 x 5.
- 2 cores 4 x 6.
- 2 cores, 4 x 7.
- 2 tamping rods.
- 2 sand rammers.
- 1 off bearing pole.
- Core spacers, face plate clamps, floats, trowels and minor accessories.

Equipment TF For 40-inch Tandem Invincible

Price, \$150.00

Includes all items listed in SF and the following in addition. Arranged for making one 40-inch stone, two 20-inch stones, one 24-inch and one 16-inch, and many other fractional combinations, and includes face plates and cores for an unusually complete line of fractionals, etc.

- 1 attachment for L-shaped corners.
- 1 rock face end door 12-inches.
- 1 plain end door, 4 inches.
- 1 rock face plate, 4 inches.
- 1 rock face plate, 6 inches.
- 2 rock face plates, 8 inches.
- 1 rock face plates, 10 inches.
- 2 rock face plates, 12 inches.
- 1 rock face plate, 14 inches.
- 2 rock face plates, 16 inches.
- 1 rock face plate, 18 inches.
- 1 rock face plate, 20 inches.
- 1 rock face plate, 22 inches.
- 2 rock face plates, 24 inches.
- 1 rock face plate, 28 inches.
- 1 rock face plate, 32 inches.
- 1 rock face plate, 40 inches.
- 1 smooth face plate 24 inches.
- 2 smooth face plates 12 inches.
- 1 smooth face plate 16 inches.
- 2 smooth face plates 8 inches.
- 1 core, 4 x 2.
- 2 cores, 4 x 3.
- 2 cores, 4 x 4.
- 1 core, 4 x 5.
- 2 cores, 4 x 8.
- 1 rock face adjustment for any angle, bay window etc.

Equipment UF For 40-inch Tandem Invincible.

Price, \$215.00

Includes all items in SF and TF and the following in addition. Adds angles, circles, diagonal broaching design, etc.

- 1 diagonal $\frac{3}{4}$ -inch broaching adjustment for any angle, bay window etc.
- 1 plug for core openings.
- 1 angle dividing plate.
- 1 broaching face plate, 4 inches.
- 1 broaching face plate, 8 inches.
- 1 broaching face plate, 10 inches.
- 1 broaching face plate, 12 inches.
- 1 broaching face plate, 16 inches.
- 1 broaching face plate, 18 inches.
- 1 broaching face plate, 20 inches.
- 1 broaching face plate, 24 inches.
- 1 broaching door, 8 inches.
- 1 broaching door, 12 inches.
- 1 circle face plate, 3-ft. 16 inches long.
- 1 circle face plate, 4-ft. 20 inches long.
- 1 circle face plate, 5-ft. 24 inches long.
- 1 circle face plate, 6-ft. 16 inches long.
- 1 circle face plate, 8-ft. 20 inches long.
- 1 circle face plate, 10-ft. 24 inches long.
- 6 circle wedges for above.

Triple Guarantee

THE BROADEST YOU EVER SAW

1st. *WE GUARANTEE* all our machines to be free from flaws or defective workmanship and will replace free of charge, within one year, any breakage caused by such defects.

2nd. *WE GUARANTEE* that our machines, blocks or processes do not infringe the patent of any other person or company, and we guarantee full protection.

3rd. *WE GUARANTEE OUR MACHINES TO GIVE SATISFACTION* and will refund any money paid to us, if such machines are not found satisfactory in every particular.

TERMS

For Cash with Order	-	-	5 per cent. Discount
On C. O. D. Shipments	-	-	3 per cent. Discount
On Book Accounts	-	-	30 Days Net

We do not open book accounts with anyone not rated with Commercial Agencies unless we are furnished with banking or business references. Customers may deposit money with their local bank during trial privilege, if preferred.

TRIAL PRIVILEGE

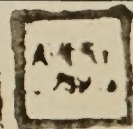
Every machine we sell, and we have sold over five thousand of them, is sold ON FIFTEEN DAYS' TRIAL, guaranteed to give satisfaction, or money refunded, the purchaser being the sole judge and no strings tied to the proposition. We mean what we say. We know we have the best there is—we want you to know it, and take this means of letting you find it out.

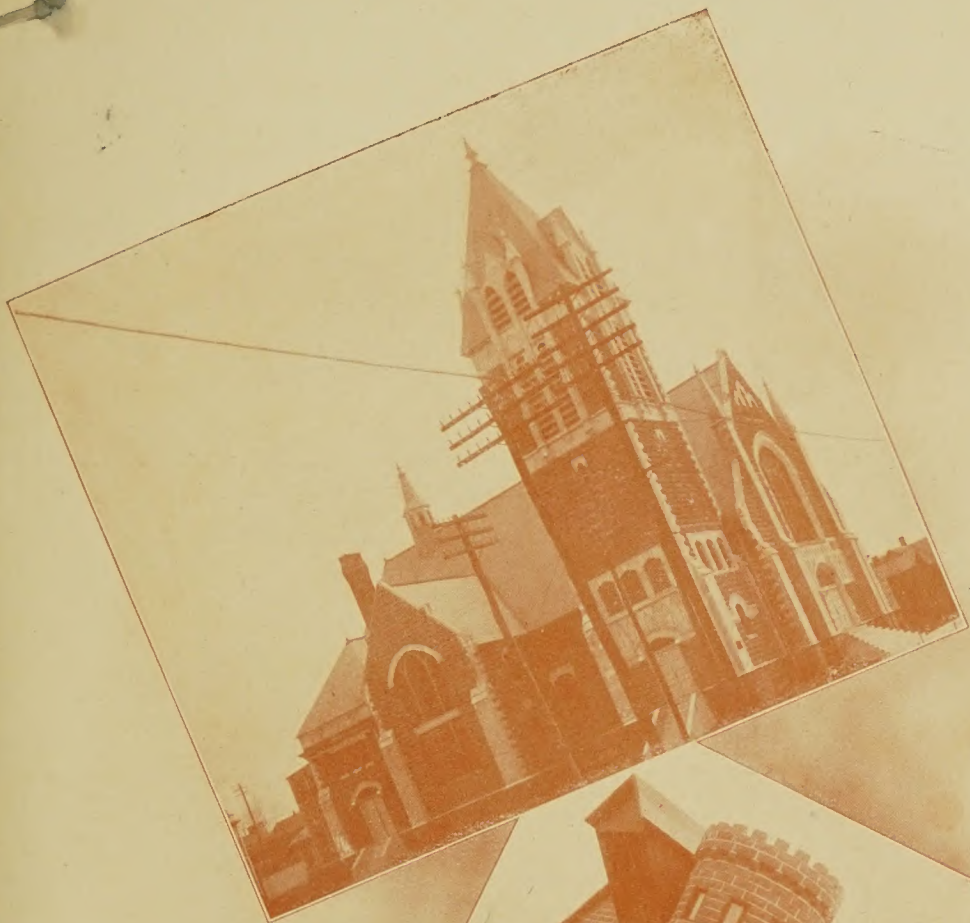
OUR REFERENCES

Commercial Agencies, First National Bank, McKeen's National Bank, Terre Haute National Bank, Any Merchant or Manufacturer of Terre Haute.

THE PETTYJOHN CO.

600-650 North Sixth Street, - TERRE HAUTE, IND.





Good Enough for Churches—Cheap Enough for Barns



MOVE THE MACHINE
NOT THE BLOCK

Stone Making

BY THE PETTYJOHN SYSTEM